# IM TRAFFIC FLOV

Message tracking storage pose problems

BY LUCAS MEARIAN Instant messaging has become clients. But now regulations governing electronic communi-

cations are prompt-ing some financial services firms to shut down IM | Chairman Harvey Pitt, is retraffic until it can be tracked

and stored like regular e-mail. "There are a lot of firms that would like to use this technology (for business transactions)." said John R. Hewitt, an attorney at Mayer, Brown & Platt's

New York office who advises investment banks and electronic brokerages. "[But] it's not an e-mail, it's not a telephone conversation, and no one quite knows bow it's going to be interpreted." The Securities and Ex-

change Commission and the National Association of Securities Dealers Inc. currently a popular means for financial identify e-mail and IM traffic advisers to communicate with as communications with the public that must be monitored and saved by companies. Hewitt said that

the SEC, under new viewing its guidance on the use of the Internet, "and indications are that the e-mail storage requirements may be made less burdensome." He added that instant messages 'hope-IM Regulations, page 16

weeks, with just 18 vacation

days during that entire time,

Griffin recently resigned from

Home Depot's IT organization,

NOVY MINER 26, 2004 + VOIL, 35 + NO. 48 + 55 COP SPECIAL SECTION

latch in 2002 know you've got to squees every ounce of value from your technology investments. That's always been one of st priorities. And now that we're in an honest-to-goodness recession, it's at ne top of every IT leader's list. The Emerging Companies that we've selected all offer ols and services that will help you bolster your bush

ecial section begins on page 31.

Oversaw enormous IT expansion at retailer

his position at the helm of BY JANKIIMAR YLJAYAM saying he wants to spend more Ron Griffin is stepping down as CIO at The Home Depot time with his family. Inc., just as the company is girding for a major overhaul of pace, Griffin said in an inter-

its core IT systems Griffin will remain at the Atlanta-based homerovement retailer for a few months, if needed, while a successor is found.

"I'm a little burned" by the view with Computerworld. "I've not struck a very good work/life balance. For the sake of my family and my own health and well-being. it's time for a change." Griffin, who is in his

Griffin, page 16

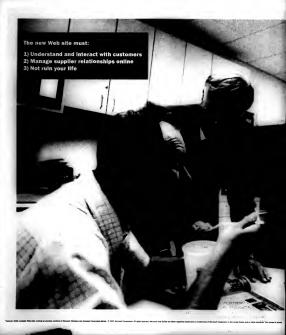
After 12 years of mostly 80-hour work- RON GRIFFIN

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# **ORLD**THIS W

# NEWS

6 Computer Associates tries to make its product lineup more comprehensible for users. Again.

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7 Wall Street needs to settle once and for all on an XML standard. IT managers warp.

8 UCITA's friends and enemies vie to get the American Bar Association on their respective sides.

10 Oracle makes a pitch to lure Microsoft Exchange users to its Oracle9i database, but persuading them to rebuild their messaging platforms will be a tough sell.

12 2002 will likely be a record year for Internet security breaches, experts tell Congress.

14 Employees and the flawed access policies under which they work constitute the weakest link in IT security, experts say.

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**Targeting the Right Customers** Paul Mandeville of Boston-based Xchange Inc. says companies need to fine-tune their efforts to get the most out of their customer relationship management initiatives.

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Looking for a fast return on your technology law ments? Computerworld's 100 Emerging Companies to Watch in 2002 are the technology vendors we identified as the agile newcomers in their markets, staying close to their customers and winning business with innovative technology. You'll meet them in this special section through the experiences of their customers.

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32 IT Boos on a Bar they're enabling IT to show fast paybae investments, say managers like Staples ublet (above).

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Targeting the Right Customers Paul Mandeville of Boston-based Xehanne Inc. says companies need to fine-tune their efforts to get the most out of their customer relationship management initiatives. www.computerworld.com/ecommerce

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Looking for a fast return on your technology investments? Computerworld's 100 Emerging Companies to Watch in 2002 are the technology vendors we identified as the agile newcomers in their markets, staying close to their customers and winning business with innovative technology. You'll meet them in this special section through the experiences of their customers.

31 Editor's Note This year's call for Emerging mies nominees revealed that despite a slow economy, there's plenty of room for innovation.



32 IT Goes on a Bargain Hunt Helping IT reduce costs and do more with fewer resources is a priority for this year's Emerging Companies. And with the nation at war and the economy in a true pin, they're enabling IT to show fast payback on those investments, say managers like Staples'

39 Untangling the Supply Chain Small compa nies are critical partners in large organizations' use of IT in operations and logistics. Determining whether these emerging companies have the responsiveness, management skills and financial wherewithal is as important as bow cool their technologies are.

40 Sold on Innovation Whether they're putting wireless access into customers' hands or enabling complex sales processes, firms looking for a competitive advantage in their sales operations are reaping the benefits of leading-edge technology from emerging companies.

44 Connecting With Customers New technology vendors belped these companies reach out to customers by automating responses through multiple communication channels and providing product information and shipping status through a customer-facing Web site.

46 Bean Counting When Nike looked for a new data warehousing tool to gener are financial reports, the company turned to a startup for just the right product



48 Saving Money on the Desktop Using a subscription-based desktop service allowed one

company to reduce operating expenses by 20% by eliminating its internal help desk and other support staff. But before teaming up, the company put the vendor through its paces.

52 All Eyes Upon Them Now more than ever, emerging technology companies are finding them-

selves under increased scrutiny from investors and customers. Here's how to answer their tough 54 Who's Getting the Money?

For IT buyers, the decline in equity investments spells good news: Their current vendors will be held more account-

56 The list Here's this year's Emerging Compa nies to Watch and the methodology for choosing

60 Due Diligence Doing business with emerging companies is an opportunity - and a challenge says columnist Frank Hayes. For those vendors to belo IT survive, they'll have to become trustworthy partners. Here's how to build that trust.

NLINE EXCLUSIVES

# **EC Sets Microsoft**

Antitrust Hearing ment month as part of its related investigation of Mi-up. The commission will of Corp. The con oft used Blugal means to by ate the market for low-one

#### ing is set for Dec. 20 and 21. gal Head Stenning Down at Microsoft

al counsel, plans to resign dt's legal and govern s for 22 years and has been an eral counsel for naise acplace in July (see box).

#### Hacker Gets Playboy Customer Data

med that a backer broke and sent e-mails to customers, complete with their credit card re and other personal to and took other unspecified

#### falmart com CEO to e After Holidays

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# AT DEADLINE CA Product Lines Get Second Overhaul

New changes reverse parts of July revamp

OR THE SECOND TIME in the past four months. Computer Associates International Inc. is reshuffline its sprawline 1.200-product software lineup in an effort to make it easier for users to get a handle on the various tools and applications the

Islandia, N.Y.-based CA this week plans to announce an expagaing of its core product brands from four to six and detail enhancements to its Web portal software and Neuerots neural network products. As part of the move, CA will create there product groupings. undoing a catchall middleware category that was just put in

company sells.

Perhaps most significantly. CA will roll its barnine ii database and middleware technolony into a new grouping of data management and application development tools. Its Web portal software, which has been part of the lasmine line, will become part of a separate product group along with its business intelligence tools. CA is positioning the latest changes as a further refinement and clarification of its

product marketing strategy. A company spokeswoman said the move wasn't driven by lagging sales but by input from users and industry analysts. "CA is trying to show that we listen to our customers' needs," she said

The latest realignment is reassuring to Susan Stevens, an IT data administrator at Wachovia Corp. in Charlotte, N.C., and president of the Charlotte Modeling Users Group, which is made up of companies that use CA's ERwin data modeline and BPwin business process modeling tools.

The modeling software will be split off from the lasmine line and put into a new group ing of tools called AllFusion. Stevens said the plan gives her increased confidence that CA is committed to the continued development of ERwin and BPwin. That's especially important because CA "has had the reputation in the past of purchasing companies and letting their software tools kind of

flounder," she said. Given the breadth of products CA sells, analysts said, it isn't surprising that some users are buffled by parts of the lineup - particularly lasmine. which CA has had to go to

ereat lengths to explain "I think the lasmine name had gone through so many cycles that it was proving to be a confusing brand," said Evan Quinn, an analyst at Hurwitz Group Inc. lo Framingham, Mass. Overall, he said, the re-

clarity for users as well as CA's own employees, and it could help the company do a better lob of focusing its research and

Ben Ettlinger, lead data administrator at the Albanybased New York Power Authority, a state-run power generation agency that also uses the ERwin tool, said he wasn't confused by CA's previous product branding. But the revamping efforts "may represent a realization on their part

development efforts

Another CA user was less impressed. The planned changes "will not fix any of the real problems," said an administrator at a large school district in the southeastern U.S. that runs a number of CA's mainframe software products A bigger concern is that the company's sales force "does not care about after-the-sale isener" at customer riter has cause of the way they're compensated, said the user, who asked not to be identified.

for other users, he said.

However, CA is trying to change its reputation of being a less-than-friendly business partner, and other users have given the company credit for improving its customer supof the need to make the (prod- port [News, Sept. 24]. )

s that are being set

# Compag Bets on Leasing to Spur Growth

Expects increase, but still dwarfed by IBM

BY MATT HAMBLEN Amid dismal technology market forecasts, at least one vendor. Compaq Computer Corp., expects big growth in its leasing of computers and related

In fact, Compag's leasing subsidiary, Compaq Financial Services Corp. in Murray Hill, NI expects to increase the amount of Compan year that it finances by 35% next year, CEO Irving Rothman said last week. Rothman acknowledged that those projections are based on a relatively small number of

the business only in 1997. The subsidiary said it expects to lease about 12% of all Compaq products sold to corpora users next year, up from about

8% this year. Still. Compag is well behind several other large computer makers in assets managed, according to an independent trade listing, the Monitor 100, which was released in lune. That list puts Compaq's financed assets for last year at \$2.6 billion, well behind the \$29 billion in financed assets

from IBM Global Financing and the \$6.8 billion from the leasing arm of Hewlett-Packard Co., Compag's proposed

"Compaq does a very nice iob of leasing, but they are dwarfed in size by some others," said Frances O'Brien, an analyst at Gartner Inc. in Stam-

ford Copp. She estimated that more than 70% of U.S. firms lease some type of computer equip ment. Companies seeking to lease will face fewer choices because independent leasing companies are being squeezed out of business due to their inability to match the attractive financing deals of bunks or commuter makers. O'Brien said.

Rothman's operation - 850 workers in 42 countries - has not yet faced lavoffs. But its future after the merger between Compag and HP is uncertain.

ber firm recently purchased 12

different news, exchange and

calculation applications that should help its financial ana-

Brokerages, banks aim to interconnect legacy apps amid mix of XML protocols

Wall Street banks and brokerages are stumbling over one another to install their own versions of XML to interconnect internal legacy hardware

and applications. But IT managers at those firms say the potential for XML to become an open Web interface - one that allows finuncial services companies and their clients to share data - woo't be fully realized until the industry settles on a single

Most of the attendees at the XML on Wall Street conferbelieve that standardization will emerge only if the securities industry and vendors agree to map their efforts around the International Standands Organization's XML data dictionary, which defines data

descriptors. "Having separate standards now will be talked about in the future as being as insanc as each of us having our own forms of TCP/IP. As financial institutions, we have to do more to coordinate those standards," said Russ Goring, deputy CIO at Dresdner Kleinwort Wasserstein, the investment banking arm of Londonbased Dresdner Bank AG.

Dresdner Bank has an internol XML strategy. Overall, 42% of companies in the global financial services industry have such strategies in place, according to Jean-Francois Abramatic, chairman of the World Wide Web Consortium (W3C). Another 36% of companies in the industry have plans to imelement XML as a middleware

sharing data are the most important reasons to use XML." said Abramatic, whose group is still working on XML Web services standards and protocols. "Vertical applications are the challenge of the day."

#### **Emerging Interest**

Others at the conference ac-Shari Ball, director of infor-

knowledged that they knew little about XML but wanted to itums on the handwarens mation services at American Capital Access loc., a New York-based company that in-

lysts weigh hood risks. Ball said she hopes XML will allow her to knit the applications together for a single view of the bond and credit information. Eli Bayajian, American Capital's CIO, said be would also like to populate a newly created SQL database with XML dote fande

XML lets American Capital's financial advisers and analysts generate bond rating reports from news, stock and bond service feeds such as those of Bloombere LP and Moody's Investors Service.

buying those services, so we need to make them work well." Ball said. "We need to deliver them as one type of deskton application so analysts can review all the companies' information to determine if we want to buy bonds from them." Pan Gu, an application develoner in the market risk divi-

aion of New York-based LP Morgan & Co., said he's looking for tools that will allow him to tie together internal systems. Still, he's having a hard time convincing his manager that middleware is needed.

\*How do you convince a manager to spend the money?" he said. "If you're building a stand-alone application that's

Making XML Worl to define the scope of XML initiatives within their industry.

· Firms must identify leavings, such as XML standards foundations. - The forms must provide person

nial quality-assurance tools . They must check by architec-

. The W3C must complete its construction of an YM With services and protocol standard.

not eveting data from an external system, it's pretty hard to sell. The problem is that if you want to use XML, everyone Lin the industry] has to be on business relationship model-

ing capabilities (see chart).

UDDI uses the Web Services

Description Language to list

the services and applications

offered by companies; the XML-based Simple Object Ac-

cess Protocol (SOAP) is the en-

velooe that sends messages

back and forth between the

registry and users. But Kelly

Babbit, senior vice president of

advanced development at Lee's

Summit, Mo.-based electronic

procurement services provider eScout LLC, said that when

## Updated B2B Services Registry Debuts, **But Adoption Among Users Remains Slow**

UDDI still faces hurdles as questions

about benefits of registration linger

An updated beta-test version of the business-to-business services registry set up last spring by IBM and Microsoft Corn, was launched last week directory, and many don't with support from two more know what to do once they're technology vendors as well as registered. improved data access and ser-

vice listing capabilities. But analysts and potential users said there are still technical snags that need to be overcome before companies are likely to adopt the Universal. Description, Discovery and Integration (UDDI) directory in a widespread fashion

UDDI backers said the directory, which they envision as an e-business Yellow Pages. currently boasts more than 7,000 registrants. But Scott Cosby, IBM's Web services ager, acknowledged that about half of the resistrants "really aren't sure how to link

with others." That underscores the fundamental hardie faced by UDDI: Companies have been slow to register with the

The second version of the technical specification ap- complex data querying and

oved in tune, is being bosted in beta form on separate Web sites set up by IBM, Microsoft Hewlett-Packard Co. and SAP AG. By early pext year, the companies said, they will be able to replicate registry data between the different UDDI

Web sites. The updated UDDI technology now also lets users set up private registries for Web services that are used within their companies or by business part

grate well with non-Microsoft operating systems.
"That's something we'd need registry, which is based on a ners, and it includes more

users customize SOAP headines, the envelopes doo't into fixed before we start making a major investment in Web services." Rabbit said. Ken Vollmer, an analyst at

Gira Information Group Inc. in Cambridge, Mass., said UDDI's slow start is likely disappointing to those who expected an explosion in its use. "They've still got to work the bugs out." Voltmer said, "You've not lots of people putting bogus informatioo in (the registry), and there isn't a whole lot of functionality wet." Housever, he added that the ongoing work should bear more fruit over the next few years.

#### ATDEADUM CA Product Lines Get Second Overhaul FC Sets Microsoft Antitrust Hearing

New changes reverse parts of July revamp

spean Commission an ed plans to hold a two-day ing next month as part of its oft Corp. The commission will hear arguments from both sides in the case, which includes claims that resoft used illegal means to try to dominate the market for low-end ng systems. The hearine is set for Dec. 20 and 21.

#### Legal Head Stepping Down at Microsoft

powned, plans to resign when the company's fiscal year ands in June. Neuton has mane soft's legal and poversment affairs for 22 years and has been an loyee since 1985. Brad Smith, ty general counsel for sales acundoine a catchall middleware category that was just put in place in July (sec box).

#### Hacker Gets Playboy Customer Data

into the online store on its Web site ploto with their credit card bors and other personal infe sweman said Play boy com hired a security comult firm and took other unspecified steps to prevent further intrusio

#### Walmart.com CEO to Leave After Holidays

Wal-Mart Stores Inc. said Jeanne on will give up her job as CEO of its online operation after the holi-day season. The announcement came four months after Bentonville, Ark-based Wal-Mort bought full eship of Walmart.com, which and been a separate company. Jo Teming, Walmart.com's head of ing, will run the unit as naratina officer.

OR THE SECOND TIME in the past four months, Computer Associates International Inc. is reshuffling its sprawling L200-product software lineup in an effort to make it easier for users to get a handle on the various

tools and applications the company sells. Islandia, N.Y.-bosed CA this week plans to appounce an expansion of its core product brands from four to six and detail enhancements to its Web portal software and Neugents neural network products. As part of the move CA will create three product groupings.

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ng six core families. New groups that are being set Advantage by data management e Trust, for security and antivirus eMFusion Inventigation He OnverPath, for portal and business intellinence software

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# Wall St. Pins Integration Hopes on Emerging XML Standards

Brokerages, banks aim to interconnect legacy apps amid mix of XML protocols

#### OY LUCAS MEARIAN

Wall Street banks and brokerages are stumbling over one another to install their uwn versions of XML to interconnect internal legacy hardware the challenge of the day."

But IT managers at those firms say the potential for XML to become an open Web interface - one that allows financial services companies and their clients to share data - won't be fully realized until the industry settles on a single

standard Most of the attendees at the XML on Wall Street conference here last week said they believe that standardization will emerge only if the securities industry and vendors agree to map their efforts around the International Standards Organization's XML data dictionary, which defines data

"Having separate standards now will be talked about in the future as being as insure as each of us having our own forms of TCP/IP. As financial institutions we have to do more to coordinate those standards," said Russ Goring, deputy CIO at Dresdner Kleinwurt Wasserstein, the investment banking arm of Londonbased Dresdner Bank AG.

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For additional amounters

sharing data are the most important reasons to use XML\* said Abramatic, whose group is still working un XML Web services standards and protocols, "Vertical applications are

#### **Emerging Interest**

Others at the conference acknowledged that they knew little about XML but wanted to imme on the bandwagon. Shari Ball, director of information services at American Capital Access Inc., a New York-based company that inher firm recently purchased 12 different news, exchange and calculation applications that should help its financial analysts weigh bond risks. Ball said she hopes XML will allow her to knit the applications tonother for a single view of the band and credit information

Eli Bavaiian, American Capital's CIO, said be would also like to populate a newly created SOL database with XML data feeds.

YMI Jers American Capital's financial advisers and analysts generate bond rating reports from news, stock and bond service feeds such as those of Bloomberg LP and Moody's Inhe said. "If you're building a vestors Service. stand-alone application that's

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application so analysts can review all the communies' informotion to determine if we want to buy bonds from them." Pan Gu. an application developer in the market risk division of New York-based LF Morean & Co., said he's look ing for tools that will allow him to tie together internal systems. Still, be's having a hard that middleware is needed. "How do you convince a manager to spend the money?"

Making XML Work dard to be successful, financial services firms must begin

to define the scope of XML initiatives within their industry. · Firms must alontify losses such

as XMI standards frundatures . The firms must exceed neven

They must check for architec-

a real consistency The WSC must convolute in construction of an XME Web services and protocol standard

not petting data from an external system, it's pretty hard to sell. The problem is that if you want to use XML, everyone lin the industryl has to be on board." business relationship model

ing capabilities (see chart).

UDDI uses the Web Services

Description Language to list

the services and applications

offered by companies; the XML-based Simple Object Ac-

cess Protocol (SOAP) is the en-

velope that sends messages

back and forth between the

registry and users. But Kelly

Rabbit, senior vice president of

advanced development as Lee's

Summit, Mo,-based electronic-

procurement services provider

# Updated B2B Services Registry Debuts. **But Adoption Among Users Remains Slow**

UDDI still faces hurdles as questions about benefits of registration linger

BY MICHAEL MEEHAN An updated beta-test version of the business-to-business services registry set up last spring by IBM and Microsoft Corn, was launched last week with support from two more technology vendors as well as improved data access and service listing capabilities.

But analysts and potential users said there are still technical snags that need to be overcome before companies are likely to adopt the Universal. Description, Discovery and Interration (UDDI) directory in

a widespread fathion UDDI backers said the directory, which they envision as an e-business Yellow Pages, currently boasts more than 7000 registrants, But Scott Coshy IBM's Web services manager, acknowledged that about half of the registrants "really aren't sure how to link

their e-business infrastructure with others." That underscores. the fundamental hurdle faced by UDDI: Companies bave Web sites been slow to register with the

The updated UDDI technology now also lets users set up know what to do once they're private registries for Web services that are used within their componies or by business partners, and it includes more peristry, which is based on a technical specification apcomplex data querying and

in beta form on separate Web sites set up by IBM, Microsoft, Hewlett-Packard Co. and SAP AG. By early next year, the companies said, they will be able to prolicate registry data between the different UDDI

eScout LLC, said that when users customize SOAP bendines, the envelopes don't integrane well with non-Microsoft operating systems. "That's something we'd need Gred before we start making a

major investment in Web services," Rubbit said. Ken Vollmer, an analyst at Giga Information Group Inc. in Cambridge, Mass., sald UDDI's

slow start is likely disappointing to those who expected an explosion in its use. "They've still got to work the bugs out," Vollmer said, "You've not lots of people putting burns information in lthe registry), and there isn't a whole lot of functionality yet." However, he added that the ongoing work should bear more fruit over the next few years.

# The second version of the

directory, and many don't

Two new browser accessible sites, operated by Hewlett-Packard and SAP, for use in entering and accessing UDDI information.

Programmer interfaces that let developers use more sophisticated and complet queries for finding data in UDOI registries.

· Improved capabilities for building models of business relationships and organizational structures into listings for viewing by other users:

# **Bar Association Hears** Debate Over UCITA

ABA backing may determine law's passage

N AN UNUSUAL FORUM that ended last week, a special committee of the American Bar Association heard two and a half days of debate over the proposed software licensing law nown as UCITA. The hearings were a step toward deteron whether the group should back the controversial

The ABA's position is seen as critical to the act's fate. If

the Chicago-based organization supports the Uniform Computer Information Transactions Act. "I believe we will see UCITA passing in many states," said Cem Kaner, an attorney and computer science professor at the Florida Institute of Technology in Mel-

bourne. Kaner is a leading critic of the measure But if the ABA opposes UCITA, he said, "I would be as-

tonished if the bill passed in any state." The meeting was held by the Robert Hahn at The Brookings In-

UCITA drafting committee of the National Conference of Commissioners oo Uniform State Laws (NCCUSE) in Chicum in what is seen as a lastdisch effort to broaden support for the embattled law, as well as to gain ABA backing.

Opponents of the measure submitted approximately 80 pages of amendments at the meeting and were armed with a letter issued the previous week by 32 state attorneys general recommending that

UCITA be scrapped. The attorneys general said the law \*appears to so much further than necessary to meet legitimate needs" and is so

their software. Such forced technical

disclosures could alert terrorists, for

metance, to potential weeknesses in

software, as well as provide a disin-

centive to window to thoroughly lest.

flawed that any amendments to fix it "would not significantly ameliorate UCITA's negative impact on consumers or on the marketplace in seneral." The attorneys general of the

opposing states - including such technology-centric states as California, Colorado, Massachusetts and New York - said UCITA's electronic-licensing concerns can be addressed through existing laws

While the number of attorneys general opposing UCITA has increased from 26 two years ago to 32, that opposition hasn't stopped the NCCUSL and UCITA's supporters from pressing forward with the law and winning adoption in Virginia and Maryland, UCITA's supporters include Microsoft

Corp. and Dulles, Va.-based America Online Inc. In addition to the threat of ABA opposition, what has slowed proponents and ultimately prompted last week's meeting has been the political success of opponents in either stalling or blocking UCITA in

when there's no specific provi

The NCCUSL drafting com-

mittee will sttempt to make its

recommendations in the next

several weeks, said Carlyle

"Connie" Ring Jr., the commit-

tee's chairman. Amendments

are expected, but Ring would

not predict the extent of the

changes. He added, bowever

that the drafting process "re-

quires people to make compro-mises" and that "there have to

be accommodations between

ferent points of view."

reverse-engineering.

A Call for Compromise

by proponents who would rather not see any changes to the law but who are nonetheless willing to give up support the eight states in which it was introduced this year. of that provision. Opponents, bowever, want UCITA provides a frame-

UCITA to ban self-help and said they worry that vendors work for licensing contracts will still attempt to implement sion in the contracts. Oppoself-help measures under exnents say UCITA's default pro-Isting laws. But they're skeptivisions grant several questioncal that UCITA's drafting comable rights, such as prohibiting mittee will ban the provision.

"It would be courageous but unlikely for NCCUSL to make radical changes to the draft," said Lars Kristiansen, director of legislative affairs at Nationwide Insurance Cos, in Colum-

Opponents are also concerned that the drafting committee could weaken the coalitioo of end users and library and consumer groups opposing the law if it recommends changes that satisfy some groups but not others.

The ABA committee will is sue its recommendations after the NCCUSL committee completes its work. The ABA recommendations could "range from supporting UCITA as drafted [to] opposing UCITA," said John Vittone, chief judge for the Office of Administra tive Law Judges at the U.S. De-

#### FOR

stitution in Washington argued in a paper that UCITA would lower trans-COST ISSUES. Vendor officials action costs for consumers and said such as Lonn Brennen, one of the founders of Gray Watter that any optential burdens "accoun-Calif\_which makes soft UCITA's supporters. ware used in motion picow Sciences and UCITA

to be minimal." The paper was released earlier this month by DISCLOSURE OF BUGS.

reponents went UCITA to pass as is without a provision to force ventions to dischase flows in

software before release, said Robert B. Merhell a portner at Seattlebased Preston, Gates & Files LLP No vendor in their right mind would ship software that's not opmo to function as it's been advertrand "Marchell sand "But as the software perfect? No.

he against the so-called selfson that allows a vendo emplely shal down software if it es the license has been vioned, Johnson warned of acciden tal or malicious use of the remote

reaction and

n costs for his small

"Electronic self-help measures are thomsolves inherently urreliable and are known to resilve and to be misused," said Johnson, "The dand there is too much at

COST ISSUES. Lucus companies. say UCITA will increase technology costs. Bruce Barnes, a former top technology official at Nationwide Insurance, estimated that UCITA would add \$20 million in costs to an (T budget of approximately \$900) milion. Security problems created I SCITA account for about half the added cost he said Limits on software france transferabil

ity are another factor, said mes, who is a private insultant in Dublin. Ohio. ISCLOSURE OF BURS Opponents are uppet that UCITA

ntly doesn't require vendors to sciose bugs. Fred von Lohmann

tion in San Francisco, argued that discionare improves security Citro the wide use of Apache open source software by the private sector, he argued that "the notion that openness. hurts security is belied by reality." REVERSE-ENGINEERING, No.

all software vendors are supporting the legislation. Sun Microsysterns Inc. opposes UCITA and Lowell Sachs, the com pany's federal governmental affairs marrages, spoke against provisions in UCITA that bee reverse-engineering "It's crucial for a number of rea-

The drafting committee is expected to make some changes to UCITA. One possibility is the removal of the so-called self-belp provision that allows a vendor to remotely shut sors," said Sechs. "It's important to down software if it believes the help strengthen networks. It fosters nnovation, [and] it helps to ensure license has been violated. That dition within the and ethe move is being recommended partment of Labor.

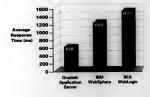
a: Thirty-two state after-DCTA is beyond repeir and want is compand. Opponents include

American Ber Associ-ition: Aspecial ABA committee is begun examining UCTA to de should support it. If the ASA to. it, that will help UC/TA win pas-tage. ASA convention

What's next: Backers will new their push next year to win ste adoption of UCITA. A key ste to weach is Washington, own to Microsoft, a major sup-

# **ORACLE runs Java**

# Faster



Oracle runs Java applications in half the time of IBM or BEA. Source: Industry standard benchmark

ORACLE

Relative performance of Oracle9, Application Server 1.0.2.2, IBM WebSphere 4.0 and BEA WebLogic 6.1 on identical hardware. oracle.com/java

#### Microsoft Sions Deal To Settle Private Suits

resoft Corp. agreed to settle oging that the company over-arged unors for its desiring soft-ru. If the deal is approved by a donate SI billion worth of soft-re, PCs and fending to 12,500 II S schools during the part flor

oft plane to take a \$550 a pretax charge in the current

# CSC Extend Pact

United Technologies Corp. to Hart-ford, Conn., added five more years to an IT outcoursing deal olgred two years ago with Computer Scices Corp. (CSC), est stract through 2014. The exte Calif.-based CSC by \$1.1 billion, to

#### FTC Warns E-Retailers About Shioments

The Federal Trade C timely product objenents after assising their Web sites. The FTC, hick didn't identify the targeted

# stem Ink \$40M Dea

signed a two-year contract, ad at about \$40 million, to but urs, PCs and other products Company Computer Corp. Co and Cardinal Health will make see under the contract

# Oracle Sets Its Sights On Exchange Users

Analysts doubtful it will unseat Microsoft

announced a migration service to lure users of Microsoft Corn's Exchange e-mail server to the Oracle% database. But it's diffi cult to find amone other than Oracle who expects the initiative to make a dent in Ex-

Oracle has offered an e-mail server product for several years but is only now aggressively targeting its chief rival. Microsoft, for a footbold in the messaging market. Oracle Chairman and CEO

change's armor

Larry Ellison said he's not looking to unsent the Outlook client, but rather the Exchange e-mail database on the back end. "Illsersl need the security, peliability and much lower ener" said Scott Clawson the director of Oracle9i product

marketine. "IF-mail! is the one

#### thing that was the highest [in] demand from our customers." Annies to Granges

At Comdex/Fall 200t in Las Vegas two weeks ago, Ellison spoke about the new service and acknowledged that Microsoft Exchange Server is priced far lower than Oracle's database. But he argued that large companies need 25 or even 50 servers with the Microsoft software to handle the same amount of traffic as Oracle%. "I'd say you need at least 10

Exchange Servers to do this, or you're too small to bother." Chris Baker Microsoft's lead

product manager for Exchange, said Microsoft's product can handle 10,000 users on a server in an application service provider model. He also pointed out that many of Outlook's collaborative functions, like cal- 1 endaring, don't work without Exchange on the back end. Oracle has some Web-based tools. like calendaring but

vou might lose some funclionality there," acknowledged Clawson The two dominant players in

the corporate messaging market are Microsoft and IRM subsidiary Lotus Software Group. "I really treat everything Larry Ellison says with a bit of skepticism," said David Druker, an analyst at Ferris Research Inc. in San Francisco.

systems in favor of Oracle Lotus users especially look to the Notes/Domino messaging platform combination for collaborative database applications beyond e-mail, he said. There isn't a compelling reason for most companies to

rip out their back-end e-mail

switch, Druker said, unless they're already heavy Oracle database overs and have the requisite database administrators to place.

"Oracle has had a mail offering for four or five years. It's inship a 9i plus-in for Notes and Druker said it's unlikely that I teresting that they would fpush Domino in the near future.

# **HP Cuts Superdome Prices**

Price war with IBM. Sun possible

BY JEWHITZE DISABATING Hewlett-Dackard Co. Jast week announced that it has reduced the prices of its bigh-end Unix server by as much as 30%. The move was sparred by a drop in memory component prices and pressure from IBM's p690 system, formerly code-named

With the 30% price reduction, the average price for a 32way HP Superdome system is AT A GLANCE

Inside HP's Superdome

■ 16, 32 or 64 processors per node: 750 MHz. four-way superscaler PA-6700 CPUs with 2.25MB are chip packer per CPU Perstonens capability for hardware contained with complete software sois

allows multiple convating environments Sun has been regarded as the ■ Up to 12966 memory per cabinet leader in the market for servers (\$12MB dual in-line memory modules) that run the Unix operating # Peak 16/08/sec. memory controller band system, according to analysts. Sun will have to cut prices. worth \$4500 per 64 years relieve

\$600,000 to \$700,000 the company said. The server also can be configured with 16 or 64

> Gordon Hall, an analyst at liluminata Inc. in Nushus, N.H., said HP dropped prices "to make it harder for IBM with the p690." Moreover, HP's cost to anufacture the Unix servers has dropped because "memory and other component prices

price of com

dropped," be added. Mark Hudson, worldwide marketing manager for HP's Unix servers, acknowledged system," Partridge said. that IBM's release last month of the p690 high-end Unix

**Potential Merger Moves** server was one of the two Haff said HP's Superdome motivating factors for the drop price cuts and its recent anin the Superdome pricing, IBM nouncement that it will dis-

is selling the p690 to compete continue the e3000 server line with rival Sun Microsystems are part of a general trend Inc.'s Sun Fire ISK server, codeamong technology companies named Starcat. The other facto focus on their biggest profit tor, he said, was the drop in the centers and aren't directly motivated by plans to merge Hudson added that both IBM with Compaq Computer Co. and HP are dropping prices to so after Sun's market share. But there could be implications, he said

"[If] the merger does go through, both HP and Compac will look hard at their product lines, and some trimming will take place." Haff said.

#### AT A GLANCE Casting The Bait

Oracle's 9i migration program includes the following services: E-mail migration assessment: A

method companies can use to access the economic benefits of moving their e-moi infrastructures to Oracle E-mail migration accelerator: A set of

took and best practices for migration from Microsoft Exchange to Oracia(9) migration) now when the market has solidified around two products," said Ed Brill, direc-

tor of infrastructure marketing, messaging and collaboration products at Lones. He said Lotus is happy to let Microsoft and Oracle "fight It out." Clawson said Oracle plans to

said Rich Partridge, an analyst at D.H. Brown Associates Inc. in Port Chester, NY.

While the pricing was probably announced as a headlinegrabber, Partridge said, the performance numbers that came out at the same time are "reasonably significant." HP announced that it had a Transaction Processing Coun-

cil TPC-C benchmark result of 389,434 transactions per minute on the 64-way PA-8700 Superdome running an Oracle Corp. 9i database. "Indeed, this was an achievement for HP to prove that they

have the scalability to a 64-way

# THE WORLD'S MOST CRITICAL APPLICATIONS RUN ON CACHE

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\* boarfystere! danbase technology is used by Americade, Hisabi, Johns Hapkins, Kannody Space Contr.
Pyine Webber, Papel Cale, Psyclamical technology is used Joy Americade, 15th Army, World Sant and other successful interpreter

participation in terms of seclors or "stovenines," which

# **Record-Breaking Year for** Security Incidents Expected

Experts criticize 'reactive' nature of responses, tell Congress to lead charge

THE GOVERNMENT and the private sector need to prepare for what will likely be a recordetting year ahead for Internet security incidents, a panel of industry experts recently told

The CERT Coordination Center at Carnegie Mellon University in Pittsburgh estites that the number of security incidents reported this year will surpass 40,000 more than twice the number of incidents reported last year. And not only is that num likely to increase next year, but such incidents also have the ential to bloom into serior reats similar to the Code Red or Nimda worms, which damaged hundreds of thousands of systems and cost companies re than \$1 billion. "The threat is critical," said

Dave McCurdy, executive director of the Arlington, Vabased Internet Security Alliance, speaking at a Nov. 15 House subcommittee hearing on cybersecurity McCardy told the commit-

tee that because 80% of the major security vulnerabilities are common to all organizations, the past four significant Internet worm attacks have cost companies more than \$10 hillion in repairs and lost productivity (see chart). McCurdy also criticized the "reactive" nature of the re-

said a more proactive approach is desperately needed. Mark Doll, a security analyst at Ernst & Young LLP in San

lose, agreed that more should be done to encourage companies, individuals and the government to take action on improvine security, "Most companies lack the necessary rigor and scale of recovery systems to respond to a national attack or a cohesive cyberterrorism threat "said Doll.

vey of 150 CIOs found that 40% of companies still don't have cybersecurity experts on staff or under contract. Warren Axelrod, director of

Global Information Security at

City, N.J.-based Donaldson, Lufkin and Jenrette Securities Corp., put the onus on Congress, urging lawmakers to subsidize the creation of separate, secure intranets for the government; provide funding for a permanent Information Coordination Center similar to the one established for the year 2000 problem; and pass legislation exempting sensitive corporate information that's

shared with the government In fact, a CIO magazine surfrom disclosure under the Preedom of Information Act. "I recognize that I am proposing a costly series of programs at a time when budgets are tight," said Axefrod. "It

creates barriers to true information sharing, McCurdy said. Mary Ann Davidson, director of security product management at Oracle Corn. turned the spotlight on IT users and consumers. "They must make security a purchasing criterion," she said. "If you do not make it a purchasing criterion, you lose the right to complain afterwards if you've

been backed."

are to prevail." The government, however, tends to view private-sector

Likewise, vendors need to join an industry information sharing organization. Davidson said, adding, "Either we hang together or we all hang separately."9



# **New Oracle Center to Tackle** Security, Homeland Defense

Oracle Corp. is building an Information Assurance Center at its offices in Reston, Va., and has hired a veteran CIA officer to lead it. Company executives said the aim is for the center to eventually become a security research and development lab for the IT industry as a whole. Oracle plans to complete by

year's end construction of the facility that will house the center. The company is currently in discussions with government agencies, universities and major systems integrators to establish a cooperative research and development relationship that Oracle customers can tap into for assistance with enter-

prise security. The center will serve as a one-stop shop for expertise on incident prevention, detection

and crisis management, and will provide a test bed for new

approaches to security, business continuity and disaster recovery officials said. The plan is to eventually ex-

tend the reach of the center beyoud Oracle's customer base and make it a security research laboratory that will "advance the state of the art in information security," said Tim Hoechst, senior vice president of technology at Oracle Service Industries.

\*My hope is that this becomes more of an industry security center rather than an Oracle technology center and that it expands to all aspects of security - from physical security to database security, and everything in between," said

Oracle, whose name was derived from a 1979 CIA development project, has bired David Carey, a 34-year veteran of the CIA and the agency's former executive director, to head the new center. Carey is credited with playing a major role in revitalizing the agency's clandestine and analysis capabilities. He also expanded the CIO role at the CIA from simply a technology manager to the agency's IT service provider. As executive director, "you

do everything from strategic unning to emptying the waste baskets," said Carry. who was about to be reassigned overseas when be decided it was time for a challenge in the private sector Carry entered discussions with Oracle last spring and officially joined the

company Sept. 4. New Trend

The announcement of Oracle's new center came on the heeis of IBM's formation of IBM Global Security Services. Analysts view both moves as a post-Sept. II push by vendors to take advantage of the burgeoning government security

the right direction, said James

Governor, an analyst at Illumi nata Inc. in Nashua, N.H. "This kind of cross-organization coordination will become increasingly important," said Governor. "A distributed world remaires distributed approaches

to security." "It's voracity, elevated by the recent congressional allocation and by wartime consu Ithat makes government the right mar-

ket for vendors to target right now," said Phil Russom, an independent analyst in Walthem Mass

Oracle CEO Larry Ellison has been tout ing his company's se-

weeks after he pledend to give the government free software for a national identification card, Ellison challenged the hacker community during the recent Comdex conference in Las Veens to break into the Oracle9i database, which, he said, is "unbreakable," Ellison also emphasized 14 security certifications that Oracle has It's a trend that's movine in received from the federal

E \$1.5 billion

#### ROLLOW

t t

3.15

# **Delta Aims CRM Tool at Holiday Travelers**

Flight-tracking app took just six weeks

Just in time for holiday travel. Delta Air Lines Inc. last week cooked up a new customes service feature on its Web site using existing technology and programming resources. Delta passengers can now

track sirport wait times at Delta.com through their itiner-ary views or in the flight schedule and information sections of the Web site, according to Kevin Donovan, manager of e-commerce at the Atlanta-

The new custo hip management (CRM) tool tracks estimated peak and offpeak wait times at curbside check-in, ticket counters and security checkpoints at about 115 airports in the U.S. and sev-

eral Caribbean countries. While the sluggish economy and ongoing security concerns have quashed many IT projects in the airline industry, this one was conceived and approved after the Sept. II terrorist attacks because of the need for improved airport security procedures, Donovan said. "I think the circumstances

that we're facing now crease the need for it," he said. Because of the longer wait times at airports, passengers need a way to calculate how much and extra security, be said. That need meant that not only was the new tracking feature at Delta com approved but its implementation was actually expedited. Donovan said. "This was a fast-track project" that took only about six weeks to de-

ign, test and launch, he said. While Donovan couldn't give details on the cost of the CRM project, he said it involved no new technology purchases - just time and overtime pay for the IT staff.

Delta's IT unit built forms into the airline's e-mail client. Microsoft Corp.'s Outlook. which collects wait-time information. WebLogic application server software from San Jose-

based BEA Systems Inc. is used to post the data to the site. "It's pretty basic. There's nothing too fascinating about the technology here," Donovan said. "We have e-mail access for our fairnorts! We created a form in e-mail [to enter the walt-time information). There was some development to ensure security." A separate access point was created for each airport, Donovan added.

# Security Experts: Users Are the Weakest Link

Insiders main threat to corporate networks

BY OAN VERTON OMPANIES THAT would have trouble if asked to compile a list of their networks users and detail the level of access those users have are sitting ducks for cybersabotage, a group of industry experts said last week.

Weak user passwords, incon-

sistent policy enforcement and lackadaisical user-access mansecment have made corporate network users the No. I cyberthreat to sensitive beginner data, said experts during a webcast sponsored by Irvine, Calif. based Access360, a company that specializes in resource pro-

"The user, while juggling even more IDs and passwords in today's environment, consaid Mark Ford an analyst at the Secure eBusiness Group at

New York-based Deloitte & Touche LLP. "We most gain control of the weakest link beforc we end up in an identity For example, dormant user

accounts and accounts beloneing to users who are no longer employed by a company are "the classic problem for cy-bersabotane," said Brian Anderson, chief marketine officer at Access360

**Familiar Threat** short-range wireless devices as

The growing problem of ineider throate is no record to most IT managers. In fact, in a recent survey on cybercrime that was conducted by the FBI and the San Francisco-based Computer Security Institute 81% of corporate respondents said the most likely source of attack was from within a company. In addition, the U.S. Treasury Department said insiders committed 60% of the computer intrusions reported

by banks and other financial institutions in the first four months of this year Ford recommends that companies return to the centralized security concepts employed in mainframe environ-

ments, including role-based identity management, he said.

access control for all users. The automated tools that exist today to do this for companies will improve security and also offer a substantial return on investment, said Ford. Identity management offers

cost containment and revenue enhancements by increasing the number of customers and business partners that componies are able to support, Ford said. It can also accelerate time to market and decrease the cost of user and network ad-

In fact, one company Ford consults at reduced its admin istration costs by \$75,000 per month by automating user

## New Wireless LAN Standard **Receives IEEE Approval**

The Institute of Electrical and Electronics Engineers Inc. (IEEE) has approved a standard called 802.0g for wireless LANs rating in the 2.4-GHz hand. The move could boost speeds of existing, widely installed wire-less LANs from IIM bit/sec. to as much as \$4M bit/sec.

Matthew Shoemake, chair-man of the IEEE high data rate study group and manager of earch and development for the wireless networking business unit at Dallas-based 802.Hg the next critical step in pring "quick adoption of a

higher data-rate standard." Alan Reiter, an analyst at Wireless Internet & Mobile Computing in Chevy Chase, Md., said users trying to determine which wireless standard to use should keep in mind that they could encounter interference in the 2.4-GHz band. That band is used by Bluetooth

well as products based on 802 Ub and 802 Us. The proliferation of wireless standards should mean price breaks for products operating under the 802.11h standard which has attained eco of scale, Reiter said, 0

#### A Misallocation of Funds?

According to Mile Hager, vice disaster recovery at Oppenir Funds Inc. in New York, core tions are facing a key problem: They have spent about 60% of their security dollars to protect

es, said Hager. "If we don't ed. rate senior menagement about what the real threats are, we don't pel support from them," he said. That's the Mo. 1 threat."

Hager said he found out first hand how easy it is for insider ac-cess to be abased. During a re-cent audit of his own enterprise.

rould work to get senior managino so remove me success of the porate data, said Hager, who were on the 32nd floor of Tower 2 of the World Trade Center when the first lower collapsed after the ter-

- Dan Wen



# If you ask IBM, e-business is complicated and hard. So don't ask them.

With fourteen operating systems, multiple chip architectures and a targle of middlewere to deal with, it's no wonder only IBM can "integrate" their systems. And with their closed, complex systems, they control it all. Which means you'll per- and pay- for their monopool, on service.

On the other hand, Sun takes out completely, Sun systems nor none cells enhanced and excellential and a single operating enhancement, so you can reside the from under \$1,000 desides postemic to over \$10,000 the disks, or frye user to lower broading a seed, something you won't find a fill. As if typ's user to lower broading a seed, something you won't find a fill. As if typ's user to love maderium of infection, portal, app somet, etc.) and the same definition for interesting, portal, app somet, etc.) and the same definition consideration of the control of the control and the same definition of the control of the co

iBM has it all wrong: e-business doesn't have to be complicated or hard. You just need the technology and partners that all speak the same language: yours.



#### Media Player Has Flaw, Microsoft Says

Microsoft Corp. has warned that a for overflow vulnerability in its down Media Planer software dd let melleinus attackers laur ds on some PCs. The flow affects only Media Player 6.4 and can be ited only if uters open a refer kind of file. But a patch issued by Microsoft also plags sepo-rate holes in other Media Player rethe three most ropular IM services on the market leases, and the company urged that Pannela Housley, compliance

#### Tihon Releases FAI **Tools for Mainframes**

Tibeo Software Inc., a Pale Alto. Calif.-based developer of enterpris ation integration software. d new tools that suppor to on IBM mainframes. Tibes is If a 2/05 and 05/390 operat ing systems, plus file transfer and ne integration took and soft e that lets non-mainframe app os recuest mainframe date.

#### IT. Other Capital Spending on Hold

other heeping flat or cutting back after the Sept. 11 terrorist attacks ording to a survey by Price useCoopers in New York at 38% of 157 chief financial ers and other top executives ed plans for new ca ets at the and of the third outr ler, a drop of four percentage pois from a survey three months earler.

#### Short Takes

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Continued from page I

## **IM Regulations**

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#### Continued from page I Griffin

Inte 40s, joined Home Depot when it was a \$2 hillion company with 35 people in its IT organization. He's leaving a \$50 billion behemoth with an IT organization of nearly 1300 people and a greatly changed technology environment.

Durine that time almost every core IT system at Home Depot has been replaced or rebuilt from the ground up. including financial, order processing, supply chain, inventory management and human resources applications. Home good 25 to 30 FT devices, such as scan guns and point-of-sale systems, today routinely have more than 500 such devices feeding the company's databases. And in three of the past four years, Home Depot has ranked No. 1 in Computerworld's listings of the 100 Best Places to Work in IT.

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 Mendion's propert also showed that the use of electronic, less based service. requests ye such meens as e-meil and Web-forms is a significant and growing customer-service feature for triangul service restitutors. · General electronic message use by linencial services companies is expect-

ed to grow to more than 30 million messages per year by 2005 Specified on message-management parties this year will be about \$39 milton and is expected to grow to \$158 million in the next live years.

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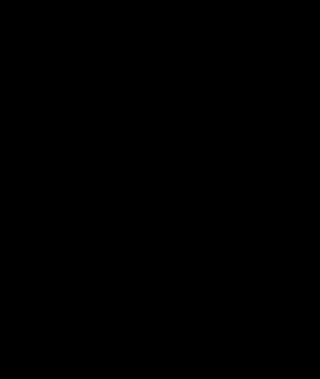
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#### ledia Player Has Flaw, Microsoft Savs

oft Corp. has warned that a uld let melicious attackers ince de on some PCs. The floor affo ly Mode Player 8.4 and can be Red only If opers open a inder blod of Ris. But a patch of by Microsoft also plays sope holes in other Media Player reos, and the company urged that

#### Tiben Releases FAI **Tooks for Mainframes**

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#### T. Other Capital Spending on Hold

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# SAP Integration Plan Aims To Open Up Applications

New Iava-based technology ties R/3

18

apps to other systems

NTERPRISE RESOURCE planning (ERP) vendor SAP AG this month announced product enhancements designed to make it easier for users to extend SAP business applications across systems running a multivendor

mix of software. Central to the rollout, made at the SAP TechEd '01 conference here, is a Web application server that includes a Java software stack and is compliant with Sun Microsystems Inc.'s Java 2 Enterprise Edition technology. SAP said the new software will let corporate developers tie their ERP systems to Web applications while preserving coding work they have done previously in its proprietary programming language.

The company also claimed that the

Enhancements to open up its Bu

application server package and other elements of its mySAP Technology infrastructure pave the way for users to dynamically write business process rules and share them within their own companies, as well as with suppliers, distributors and customers.

However, some SAP-savvy IT departments will have to make investments in Java training before they can take advantage of the new tools, said Donald Duncan, a senior information systems analyst at the California Department of

The water resources depart runs the R/3 finance and human resources modules. SAP's new integration architecture could help California's state government link its various lessey systems and let agencies rapidly share data via the Web. Duncan said. But learning to use R/3 \*is not a trivial undertaking" for end users who aren't familiar with the software, he added.

A developer at a large university in New England, who asked to remain anonymous, said be suspects that the full benefits of SAP's integration scheme won't be available to users for another two to three releases of the technology. But other users were en-

thused by SAP's move. "We're looking for ease of use and to have one front-end [user interface]." said Dawn Genian, director of information systems at audio systems maker Harman International Industries Inc. in Northridge, Calif. One challenge with R/3 is making the graphical user interface easy enough for executives to use, Genian said, adding that the Java support should help address that problem.

# IBM Continues Linux Push With **New Preconfigured Server Clusters**

Hardware, software bundled together to speed setups

IBM this month underscored its \$1 billion commitment to Linux technology by announcing a set of preassembled server clusters that support the opensource operating system The new Linux eServer Cluster 1300

line also includes bundled applications and server-level software plus integration testing and technical support services, IBM said. The clusters, which are scheduled to start shipping today, can be set up with a minimum of four Intelbased servers and a maximum of more

The National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaism

began a Linux cluster project earlier this year. If IBM's preconfigured clus-

ters had been available then, the NCSA would have carefully considered them because they could have simplified a very complex project, said Rob Pennington, associate director of computing and data management at the center IBM said the new chusters run Ver-

sion 2.1 of Research Triangle Park, N.C.based Red Hat Inc.'s Linux and include centralized cluster management tools and global file system software derived from IBM's Unix-based SP supe puter. Pricing for a cluster of right Pentium III-based servers and a separa inscement server node starts at

AT A GLANCE Easier Clusters

IBM's preassembled Linux clusters are meant to simplify deployments for users THE MEN CLUSTERS FEATURE

a Four to more than 1,000 linked surprise # Full systems administration, maintenance and

workload management software m Bundled, installed and configured server-level software

The server clusters will initially be offered in configurations designed for five targeted uses: high-availability applications, database servers and e-commerce, e-mail and transaction process-

Software from IBM and other ven dors will be packaged with the different configurations, IBM said. For examp the e-commerce clusters include IBM's WebSphere application server and electronic business software, while the database clusters come with the enterprise version of its DB2 Universal Data-



## WHEN YOUR EMPLOYEES CAN'T ACCESS INFORMATION, IT'S NOT JUST TIME THEY'RE WASTING

# Room to s

# tretch.



#### J.D. Edwards Closes Deal for CRM Vendor

der J.D. Edwards & Co. com inition of Youcontric Inc... a Charlotte, H.C.-based developer of (CRM) software, for \$6 million in cash plus stock valued at \$50 mil-lion, J.D. Edwards size released as initial CRM offering combining its

#### World Web portal with Youce Ex Commerce Head Named SBC President

es inc. named form stary of Commerce William it also where to work with New by its new president, effective York-based Knoll Inc. to prolec. 1. Daloy, who also chaired Al. vide security assessment ser-Gore's presidential campaign, will

#### Deal to Hurt SunGard Earnings 'Modestly'

ight Rosemont, III.-based Com-co Inc.'s disaster recovery unit ckard Co., said the operation will ngs for this quarter and the half of next year. Wayne, Pa. ed SunGard estimated that the co unit samed \$460 million venue during the fiscal year d Sept. 30

yeals, Calif.-based managed ses provider LOUDCLOUD INC. ried a loss of \$40.7 million on ue of \$14.3 million for its third arter anded Oct. 31, but it reed the less forecast for the full al year. . . . FRONTRANCE SO-IS INC., a CRM vendor in

# IBM Puts Increased Focus on IT Security

Demand surge after attacks prompts expanded offerings, centralized planning

TRM 1AST WIFE OR nounced a series of steps aimed at expanding its presence in the IT security market in response to an increased demand for such services after the Sept. II serrorist attacks on the U.S. IBM is increasing the numher of security and data privaey services it offers and creating a new security office that will identify emerging trendand coordinate technology development. The company said

vices (see how) "We felt it was important to get out there and respond to customer needs by marshaling our capabilities," said Rusine Mitchell-Sinelair, who was named general manager of safety and security for the IBM

Clobal Services unit Expanded offerings under the new initiative include virtual private networking and authentication services, as well as secure content delivery and mobile connectivity programs, IBM said. The vendor said it's also now focusing more on intrusion detection, vulnerability assessments and managed finewall services for

#### hosted applications. Pulling It Together

Many of those capabilities have already been available from various groups within IBM Global Services, said John Pescatore, an analyst at Gartner Inc. in Stamford, Conn. But now, be added, the company is trying to pull everything together under a more coordinated security services portfolio. "They're mostly just reorganizing ... their services," he said, "Like others, they want to

capitalize on all the attention around security after Sept. IL" Since the attacks, there has been a surge in demand for IT security services, especially those involving intrusion-

detection capabilities, as well as for assessments of vulnerabilities and compliance with corporate security policies and regulatory requirements, said Michael Rasmussen, an analyst at Cambridge, Mass, based Giga

For example, 58% of 124 fT managers surveyed last month

Efforts such as the ones announced this week on taking IBM - and its staff of about 3,000 security consultants and developers - deeper toto territory that's currently occupied by dozens of relatively small, specialized vendors. "IBM is a huse compeny."

by Computerworld and New York-based J.P. Morgan Securities Inc. said they plan to spend a higher percentage of their budgets on security next year [Mency Mosc 10]

> Rasmussen said. \*But there is quite a demand for security services, so I don't know whether [its new initiative] will hurt anyone else." >

# **Grid Computing Gets Push** From Top Server Vendors

Compaq, IBM, Sun all target system pooling technology

Grid computing which had already caught the attention of IBM and Sun Microsystems Inc., is now being targeted by another major hardware vendor: Compag Computer Corp. The three server rivals this month separately announced developments related to grid computing in which groups of computers in different locations are harnessed together to

provide large amounts of processing power for scientific research applications and other data-intensive uses Compaq said it's getting into the grid grena through a deal

that will combine its Alpha-Server Unix systems and Linuxbased versions of its ProLiana servers with technology being developed by Platform Computing Inc. in Markham, Ontario, Compaq will sell, install and support Platform's grid tech-

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> IBM released an upgraded version of the Globus Toolkit for use with its eServer systems and included new support for its AIX derivative of Unix in addition to existing

#### JUST THE FACTS Shared Resources

Server vendors such as IBM, Sun and Compaq are taking an increasing interest in grid comnuting a concept for linking multiple systems to combine their processing resources. HOW IT WORKS: Different servers waithe Internet and can then be used to

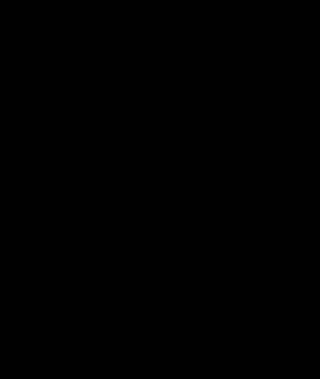
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support for Linux. It also signed a deal to belp build a grid setup in North Carolina for use in genomic research. Sun released a beta version of on uperade for its Sun Grid Engine Enterprise Edition software that's designed to make it easier for users to set up "campus grid" systems that link computer resources at several different facilities, to addition.

Sun said it's extending the interfaces between its software and grid computing technology developed by Avaki Corp. in Cambridge, Mass. Rob Batchelder, an analyst at Gartner Inc. in Stamford, Conn., said the grid concept

has lone been a "utonian vision of what computing can be." But while the technology shows promise for scientific uses. Batchelder said, one big limitation is a lack of clear business applications. "There are not a lot of obvious uses in the fcor poratel enterprise," he said.

However, Stacey Quandt, an analyst at Giga Information Group Inc. in Cambridge, Mass, said that some business users should be able to benefit from grid computing anproaches. She added that within the next 12 months, uses will likely be found in vertical markets such as the pharmaceutical and auto industries.



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PATRICIA KEEFE

# Stumbling at the Altar

HE LAST THING that Hewlett-Packard's Carly Fiorina and Compaq's Michael Capellas need right now is a bunch of angry users. The executive duo already have their hands full trying to mollify skeptical analysts, cautious shareholders, concerned government agencies on

both sides of the Atlantic and resistant, outspoken founding families. Tripping over a 30-year-old product line isn't particularly graceful as you

make your way down the aisle in a corporate marriage.

On the other hand, continuing to build your company's systems — and its competitive future — around a 30-year-old product line in an era when three-year product life cycles are the

norm inn't exactly the most strategic move many HP e2000 users could be making right now. However beloved (remember the Wang VSP), the e3000 is a fossil. What's needed for HP and its e3000 users is a strong dose of reality programming. One of the hispest issues dougher he proposed

One of the biggest issues dogging the proposed merger of Compaq and HP is their overlapping technologies. Axing the e3000 line roughly three most after laying out its five-year plan to user Page One. Nor. 19 was a stupple move. So it would behoove a combined HP/Compaq to be more sensitive as it moves forward. It needs to be

ed government agencies on especially careful when positioning any product that is a candidate for the ar. Don't mislead users. Constructing a longer-term product support program

for older systems while structuring affordable deals that will enable less painful migrations builds good will. As for users, news of the pending merger should have hastened a quick survey of the two companies' product lines. The fact is, HP has tried to appease e3000 users, but the technology pease e3000 users, but the technology

is a long-term losing proposition. IT managers should have seen this coming, and they should have strategies in place to deal with it. Given the small installed base, factor in the age of the product line, add in the proprictary operating system and you should be asking yourself. Is Authentier investment really wise? (The

AP/Compaq and its customers need to reach an accommodation on how to equitably retire product lines. If they can't, IT careers will be derailed, and this marriage will not succeed.



HAT YOU DON'T KNOW might not hurt you, but it can cost a bundle and hamper good decision-making unless you use IT to systematically apply the historical knowledge

you've gained about your company and industry. For example, in the pharmaceutical industry. FDA oversight requires time-consuming and expensive clinical trials to test the efficacy of drugs before they're approved for use. These trials are designed to reveal how well a drug works for a well-defined aliment. So while a drug may be a visible treatment for a variety of filesses, its previable treatment for a variety of filesses, its pre-

scription label can reflect only what it was tested for. The drug Doxycycline has been approved by the FDA as effective for combating anthrax, though it wasn't originally labeled as such because a specific clinical trial wasn't conducted. After all who would a

After all, why would a company spend money testing for effectiveness against something as un-

likely as anthrax?

But by using IT to create simulations and models, virtual clinical trials can be conducted to cut the cost and time of actual trials.

Fantasy IT? Hardly, Mountain View, Calif-based Pharsight Corp. has developed a suite of programs that takes advantage of what is already known about certain drugs, patient test groups, dosage histories and huge amounts of clinical data to produce detailed reports to guide drug companies in compiling more efficient trials.

Using simulated data sets, Pharsight makes it possible for clinicians to plot better strategies to measure the potency of drugs and response rates and even gauge whether it would make a significant difference to expand or contract the number of patients in a particular trial. With a mix of C++, Visual Basis scripts and XML schemas running on dynadows T1 serves, the rich repository of data about previous trials can be factored into the decision-studing process for forture drug uses. And official trials are the factored into the decision-studing process for forture drug uses. And official trials.

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This type of data mining and application

# **NEWSOPINION**

confined to the pharmaceutical business. In the automobile industry, car companies have been able to simulate noise, vibration and handling techniques using historical data to find out how a car will drive long before a prototype is built.

At the high end of the spectrum, Volvo employs a Silicon Graphics Origin 3800 server with 128 CPUs to run crash simulation application software as part of the development of safer cars. It's time for every business to test and make de-

cisions using previous experience. And let IT systems do the beavy lifting.

#### MICHAEL GARTENBERG Keys to Success For Ubiquitous Computing

AST MONTH, I discussed how ubiquitous computing meets the Acriteria that allow it to potentially displace the PC as the information appliance choice for most business users. As I define it, there are three critical components of ubiquitous computing: Web services, wireless connectivity and a diversity of information de vices. While ubiquitous computing might be lacking in the first two, it's dependent on wireless connectivity to be successful.

Despite the issues of different standards for wireless networks, there are three major connec tivity types that will help the growth of ubiqui-

tous computing: wireless personal-area networks (PAN), wireless LANs and wireless WANs, Each can be broken down into different competing technologies, and IT managers should get to know them.

For multiple devices to work as a model, they will first need to speak to one another through a PAN and exchange relevant data. The key is relevant data being transmitted to each device. While I doubt that I will ever want to view a spreadsheet on my

mobile phone, synchronizing my Outlook conracts would be ideal. Here, two technologies will ate: Bluetooth radio and Infrared Data Association (IRDA) infrared. While there has been a slow uptake of Bluetooth as a standard, it works, and works well. IRDA is also a contender for syn chronization and beaming data. The irony is that just as IRDA has matured to a point of usability.

many laptop vendors are removing infrared ports from their systems to save money.

The second critical form of connectivity is the wireless LAN. Already popular in airports, hotels and other venues, the dominant 802.11b standard will become more popular. Its successor, 802.11s, will emerge in products by year's end with increased performance. But the final specification for 802.11a hasn't been ratified and adopted worldwide, so you should hold off on deployment until final standards emerge (at least until mid-2002). For now, 802.11b should be considered for wire-

less LANs in homes and businesses, or anyplace a shared, fast Internet connection is needed. As ubiquitous computing grows, the third connection type - WAN connectivity - will become critical. Over the next two years, fast connections using General Packet Radio Service. which enhances the GSM standard that supports data, and its competitor, Code Division Multiple Access 2000, will offer wireless speeds of 56K to 144K bit/sec. Replacing slower Cellular Digital

Getting Off the Leash

Keefe's Nov. 12 edito

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READ PATRICIA

Duty," News Opinion?

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Packet Data, which enhances analog cellular networks and supports speeds of a mere 19.2K, these so-called third generation, or 3G, networks, will reinvisorate carrier revenues for the wireless telecommunications companies and put great pressure on wireless Internet service providers to compete. With digital handsets offering fast connectivity and linked via Bluetooth or IRDA to PDAs and laptops, the notion of your data any-

time, anywhere will become reality Wireless connectivity has suffered from a renutation of mediocre performance, high cost and confounding complexity. Over the next three years, the maturing of the wireless PAN, LAN and WAN will enable the third wave of ubiquitous computing. I believe that by the end of 2004. every information device designed for busines use will ship with at least two of these types of connectivity. Next month, I'll discuss the new and diverse types of devices that will take advantage of all this connectivity - and why you'll want to carry up to three of them at all times.

Circuit Court of App overruled him, stating that the act is to be invoked only if an antitrust settlement would make a "mockery" of the court. Unlike 1995, this time Microsoft was found liable by that same appeals court of being an abusive monopolist, before the Bush administration, in effect, threw the case out. In my eyes, this puts the burden on the DOJ to show that the present decree doesn't make the

judicial system a sham. rtreesboro, Tenn.

What's your choice? CORDING TO the

article "HP to Scrap e3000 Server Line" (Comp world.com, Nov. 143, "The demise of the HP e3000 series is no surprise because proprietary or specialized operating enviments have lost favor with customers in reces years, said Rich Partridge, vice president of rprise servers at

D.H. Brown Associates

thank Partridge for help ing me avoid the mistake of choosing another proprietary system like MPE/IX. I'll move to a more open system like Microsoft Windows NTM, Windows 2000 Windows XPTM, or HP-UXTM. Maybe I'll really go open and run Red Harm Linux and add HP Service OS for Linux79 HP Multi-Computer/S viceGuard<sup>na</sup> and HP OpenMail<sup>ru</sup>, I'll never have to worry about set ting stuck with a proprietary system again. Mark Worsil

M Feternsines Inc

Here Comes the Bloat

Computing, I have to jump in on the subject of the Tablet PC ("Tablet PCs Inspire Business Use Hopes," News, Nov. 19), 1 have a 3-year-old Vade Clic 1000 that, for all intests and purposes, fulof a Tablet PC. It was my Internet appliance and

PDA for two years. The Clio's downfall was Mi crosoft's decision to abandon Windows CE Professional as a strate gic platform and curtail further integration with Office. The Clio works, didn't cost half of what the proposed Tablet PCs will cost and is already obsolete, if you believe Microsoft Pm afraid Tablet PC will be one more bloated, overpriced and underperforming product, except in a few vertical markets.

Rybrand Va

More Letters, page 28

COMPUTERWORLD well l otters will be erited for b and clarify. They should be ad dressed to Jamie Eckle, letter ecitor, Computerworld, PO Box 9171, 500 Old Co rember for remediate ve

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# See what I'm saying?



There was a particular stoke of genine andy in this brainstorming session, New Monard Yadar 2002 and seeks you bit seeks for dearly organize on the loss and present a descript plant of action. Create crystal clear functions, timeline, see genizations clearly, even detailed from plant, at in an intuitively designed, seek spice see greater, with Value your loss become seally understood solutions. And with the designed seeks of the seeks of the loss of the loss

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# NEWSREADERS' LETTERS

## ing Out of DLL Hell

TICHOLAS PETRELEY is right on the money with his assessment that DLL hell and the other complexities of Windows are a means by which Microsoft makes it difficult to run Windows apps on non-Windows operating systems ["Side-by-Side Hypocrisy," Technology. Nov. 121. These complexities also keep the riffraff out of

Windows software development, ensuring that only the large and well-funded can write Windows software and reducing competition for Microsoft. In the past, people have often chalked up the un-

due complexity of Windows to sheer ineptitude or softwaredevelopment anarchy at Microsoft. These explanations don't square with Microsoft's overall prowess in other areas of the software business. Pe-

treley's hypothesis does. The sorry by-product of needless software complexity is low reliability, which all of us have experienced ever since Windows hit the streets. Ben Myers

Owner Sout of Performance Inc. Herverd Mass.

ENJOYED and was in-

formed by this column While I have no reason to doubt his report that Microsoft may have intentionally obfuscated the solution to DLL hell. I would like to point out that his proposed "trivial" solutions to the problem are perhaps a tad ton trivial. In particular, the suggestion that Windows follow the Unix convention of renaming each version of a DLL (which Microsoft has in fact tried, as in MSVCRT40.-DLL) would only take us to a different, and perhaps even less tolerable, part of hell. Microsoft would have to distribute every version of every sys-tem DLL indefinitely (to support old applications that hadn't been upgraded), increasin Windows' disk footprint and install time. All application vendors would have to rebuild and redistribute their apps to take advantage of bug fixes, security natches or other improvements, while users would spend hours installi those upgrades. Help desk staff would be lost in a quag mire of multiple application and DLL versions and interde pendencies. Additionally, this practice would defeat some of

the benefits of DLLs (which

dows applications is due in part to standard dialogs and other interface elements that are implemented in DLLs. As the Windows GUI has evolved.

old applications have gotten free face-lifts, and usability has been enhanced. Yes, DLL hell

exists; I, like you, have been there. But I doubt that the way

out is as hard as Microsoft says or as easy as Petroley suggests. Chris Pearson

Petroley forgot to mention). To cite only one, the relatively uniform look-and-fret of Win





#### And here.



#### And here.



And here.

# You are here.

**COMPUTERWORI** I

suterworld is a most-read for atwone looking for insight, analysis, and advice on how to use technology to build business. Which explains why so many savvy execu tives already subscribe to Computerworld. And why you should apply too · · at www.cwsubscribe.com.

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#### Editor's Note

ABADY BRUISED ECONOMY
hasn't eliminated the need
for good ideas; it's just weeded out some of the bad ones. The
technology sector in particular
has taken a nasty beating in the
past six months — hardly a day
passes without news of more layoffs, more missed numbers. Yet
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Froblem is, only a small mamber of these companies truly have their beads in the game. The ones were desertfied in the following page, a Companion, and the companion of the companion of the companion of the small of the companion of the companion of the companion of the small They stay of companion of the companion of the small They stay of cost to their corporate IT costtomers, deliver innovative tools and services and are continued to the companion of the cost of the cost of the gallet enough to stay a seap shaded in a tought economy vectors equital, they've also pose a few rounds with investors and therefore are thrifty with their cash and

savey with their business plans.

This year, more than ever, I'll managers are looking to partner with technology wendows that can give
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ware, to name just a few. These customers also offer their advice for choosing and partnering with start-ups and the lessons they've learned along the way. And to help you next they've learned along the way. And to help you next the contract the contra

who are getting value from them now.

Because, even as the economy reels, the need for new technology applications will always be here.

And there's never a bad time for a good idea.

Ellen Fanning is special projects editor at Computerworld. Contact her at ellen fanning@computerworld.com.

Quick Look for additional stores, resources and links about start ups and the Emerging Compenses to Watch in



Our job is to see how we can prosper. If that means using an emerging company, we're going to do that.

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## ITGoesona Bargain Hunt

#### **EMERGING COMPANIES 2002**

#### This year's Emerging Companies to Watch have one important thing in common: They're helping IT keep an eye on the bottom line in times of economic uncertainty. By Steve Ulfelder

to YOU HEAR THE NEWS IN CAME with a short on Greyl. I and a givest righ as the economy ernded further. Times have changed, Growth is out efficiency is in If you want to prevail in the new economy, forget about that funcy e-commerce initiative that may or may not pay off down the road.

Business once again wants IT to focus on reducine coats and doing more with fewer resources.

And with the nation at war and the economy in a true tailspin, it wants to see payback on these investments immediately. Staples Inc. got its payback within six months with the elimination of one full-time IT position. The

the elimination of one full-time IT position. The Framingham, Mass-based office supply company installed content management software from new-company installed content management software from new-company in the content of the company in the comp

Trigo Technologies Inc., www.trigo.com What's the edge? Offers the management and syndication of thousands of electronic catalogs to e-procurement

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Web site.
Previously, only a

skilled IT worker could populate files to the Web site. Trigo's simpler interface means that average users 'Can do it themselves,' says Lisa Hamblet, vice president of business-to-business e-commerce at Stables. 'We've reduced our need for IT resources.'

That experience sums up the changing demands on IT in a matchile last last year, a whole passed to fit to etchnology providers. Computerworld identified as the 100 Emerging Companies to Watch were inctor on helping enterprises grow. Nearly one-third of last year's stars — 30 ust of 100 — were either ecommerce companies or online market exchanges. Those are broad categories, to be sure, both or employed these new wenders was clear. Our tools will help

In these brustl economic times, lower corporate carnings and a solden mistrator of the Internet's potential as a channel have changed all that. In its sample all survey on corporate IT spending, Sinton-based AMR Research Inc. saked 700 companies, 42% of which have annual reverse of more than \$15 billion, which chare maint evenes of more than \$15 billion, what drivers IT spending. Tasty year, the top sanswers were all around evenes generation, "page block visual contractions of the property of the contraction of the property of the prope

These are precisely the promises of this year's mereging companies. Some, such as Plymitter Soft-ware, let companies some one production coast by creating a single corporate portal. Others, and has Player-ville. III. beased Vinnal Insights, help marketing departuncies better analysis the returns on their Web site investments. While their products are closely in tase vestments. While their products are closely in tase reasons. While their products are closely in tase reasons while their products are closely in tase to their products are closely in the products are products and the products are closely in the products are close

and they offer a quick, often dramatic return on investment. "It's pretty clear the way to get IT spending approved now is with a good ROI story," Kraus says. But why not cut costs with an Oracle, a Hewlett-Packard or an IBMP After all, it's been a rot

ten year for start-ups — Venture-One Corp., San Francisco-based research firm, says vote that the start of the start of

#### will be alive in 12 months. Squeeze Value From Each Technology Investment

When cost-cutting is the goal, head count is a plump target.

Nancy Alter, director of IT customer support at

Horsham, Pa-based Penn Mutual Life Insurance Co. has reduced her help desk staff from seven to five while increasing internal customer satisfaction. She gives much of the credit to Courion Corp., a Framingham, Mass-based vendor of password management and user authentication tools.

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Penn Mutual's help desk fields about 100 calls per month from employees who have forgotten their passwords or have other password-related problems. The vast majority of the calls come from remote

passwords of nave other password-rearter protein.

The visit majority of the calls come from remote users, Alter says; Penn Mutual has 500 home-office users, 500 field associates and about L200 roving agents.

Alter's problem was that the insurer is a Novell

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kingdom 'in order to let them resolve passwood problems on the initial photoe calls, After says. The help desk staffers on their own could resolve only best 12% of the case in the resolve only about 12% of the case in the resol of the time, they had to get some information from end seers and call in only that group out-off neet passwoods, the says. Last year. Pean Mutual began using Courtion's Passwood Courier, a Web-based application. The product is intended to function a self-service tool for all users, but the future of to sufficient on the resolution of the court of the support of the two years.

product is intended to function a self-service tool for end users, but the insure first Yusting it that way (though Alter boges to make that move next year). Intread, the help desk staff assists users but doesn't have to have high-level privileges. After says the help freeing up highly paid security professionals for job recing up highly paid security professionals for job that have a greater value for the company, such as analyzing intrusional alerts.

"Both the help desk and [security staff] spend more time fixing more complex problems." Alter says. "We can give them more earithing problems and more training."

Users' productivity has increased as well, Alter says, because the time required for a typical passward reset has been slashed from 15 minutes to less than five.

Find Cheaper, Faster Ways to Do the Basics Countrywide Credit

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function training.

Until the middle of last year, the Calabasas, Califbased lender did all employee training live in one of three locations. "We had to fly people in and pay for airfare, meals and ground transportation for three to five days," says Bon Schneider, first vice president of

five days, says Ron Schneider, first vice president of the division. "And of course, when you do that, you're taking people out of the office."

Countrywide began searching for a cheaper training method and found WebEr. Communications Inc., a San Jose-Sead company that offers real-time multi-

media communications.

Countrywide's IT group performed tests to make

#### Think Like a Venture Capitalist

ring a partnerside with a start-up? The following tips was help midgate your state:

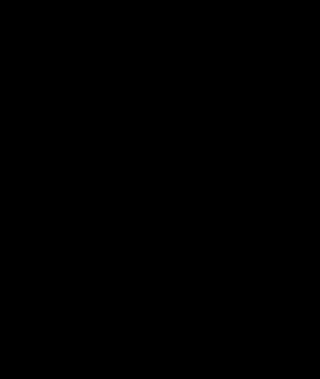
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#### FMFRGING COMPANIES 2002

#### This year's Emerging Companies to Watch have one important thing in common: They're helping IT keep an eye on the bottom line in times of economic uncertainty. By Steve Ulfelder

m you mak the NEWs-It came with a shout on Sept. II and a quiet sigh as the economy eroded further. Times have changed. Growth is out; efficiency is in. If you want to prevail in the new economy, forget about that fancy e-commerce initiative that may or

may not pay off down the road. Business once again wants IT to facus on reducing costs and doing more with fewer resources. And with the nation at war and the economy in a true tailspin, it wants to see payback on these investments

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Trigo Technologies Inc. What's the edge? Offers the manage ment and syndication of thousands of electronic cutations to e-poocurement

comer Trigo Technologies Inc. in Brisbane, Calif. on StaplesLink, its business-to-business

systems and marketplaces Previously, only a skilled IT worker could populate files to the Web site. Trigo's simpler interface means that average users "can do it themselves," says Lisa Hamblet, vice president of business-to-business e-commerce at Sta-

ples. "We've reduced our need for IT resources. That experience sums up the changing demands on IT in a nutshell, but last year, a whole passel of the technology providers Computerworld identified as the 100 Emerging Companies to Watch were intent on helping enterprises grow. Nearly one-third of last year's stars - 31 out of 100 - were either e-commerce companies or online market exchanges. Those are broad categories, to be sure, but the emphasis of these new vendors was clear: Our tools will help

erow your business In these brutal economic times, lower comprate earnings and a sudden mistrust of the Internet's potential as a channel have chanced all that, in its annual survey on corporate IT spending, Boston-based AMR Research Inc. asked 700 companies, 42% of which have annual revenue of more than \$1 billion, what drives IT spending, "Last year, the top answers were all around revenue generation," says Bob Kraus, AMR's vice president of quantitative research. "This year, the biggest answer was 'cost-cutting' and the second 'efficiencies.' "

These are precisely the promises of this year's emerging companies. Some, such as Plumtree Software. let componies save on production costs by creating a single corporate portal. Others, such as Naperville. III.-based Visual Insights, help marketing departments better analyze the returns on their Web site investments. While their products are closely in tune with companies' various business functions (see stories on pages 40-48), this year's companies to watch have a couple of things in common. They tend to focus on the expense side, rather than on the revenue side,

and they offer a ouick, often dramatic return on investment. "It's pretty clear the way to get IT spending approved now is with a good ROI story." Kraus says. But why not cut costs with an Oracle a Hewlett-

Packard or on IRMP After all, it's been a redten year for start-ups - VentureOne Corp., a San Francisco-based research firm, says venture investments have dropped for five straight quarters. Companies are straggling with the

decision to hitch their wagons to young, untested companies. Though IT managers say start-ups allow them to shape the products and demand top-flight service, the risks are undeniable; you must perform extra due diligence simply to make sure the vendor will be alive in 12 months

#### ueeze Value From Each

schoology Investment When cost-cutting is the goal, head count is a plumo tarnet. Nancy Alter, director of IT customer support at

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shop, and with Novell, it's Courion Corp. What's the edge? Offers set service become of and directory sunagement spliware to reduce

impossible to reset passwords without system administrator privileges "We would have had to give everybody |on the help desk! the keys to the

problems on the initial phone calls. After size: The help desk staffers on their own could resolve only about 15% of the calls. The rost of the time, they had to get some information from end users and call in Penn Mutual's Information Protection department: only that group could reset passwords, she says. Last year, Penn Mutual began using Courion's Password Courier, a Web-based application. The product is intended to function a self-service tool for end more but the incorer jan't mane it that was (though Alter hopes to make that move next year). Instead, the help desk staff assists users but doesn't have to have high-level privileges. After says the help

Limedons" in order to let them resolve password

desk can now resolve 50% of all password resets. freeing up highly paid security professionals for jobs that have a greater value for the company, such as an-"Both the help desk and [security staff] spend more time fixing more complex problems," Alter

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#### Find Cheaper, Faster Ways to Do the Basics Countrywide Credit, Industries Inc.'s Whole Communications Inc. sale Lending Division has used technology

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ing method and found WebEx Communications Inc., a San lose-based company that offers real-time multimedia communications.

Countrywide's IT group performed tests to make

#### Think Like a Venture Capitalist

TRACK RECORD. The management teams at start-up com-panies always took good on paper, so Michael Carus, chief op-erating officer and chief financial officer at Jerusalem Venture ertners in New York, says he asks if the beam has ever actually produced anything - at a previous start-up, for example, or perps as a learn at a large company. "If the nucleus (of the manment teern! has proven they can bring something from the ign phase into the market, it gives us a high degree of confidence," he says.

THE FUTURE IS NOW. With today's tight budgets, don't sign on with an emerging company unless if can add value to your

company's bottom line quickly. "That's different from what it was a year ago, when you could invest in both your needs and your wants, "Cares says. "Now you want it clear that there's going to be value creation soon.

PARTMERS COUNT. IT professionals may be smitten by an emerging company with sony technology. But it that technology marketable? To find cut, Jerusalem Venture Partners studies a start-up's strategic partnerships. "If they've been able to con-vence Claco that Cisco can make money off their products.

#### **EMERGING COMPANIES 2002**

#### ITGoesona Bargain Hunt

sure Webb's Meeting Center, a histed service, wouldn't affect the performance of its network or other applications. Once the company was convinced that it wouldn't, it made an initial investment of about \$200,000, Schinelder says, and shifted almost all of its training to the Web.

According to Schneider, the results have been eyepening. In fall of 199, we trained 892 people I'm lave settings\( \). The says. That number was limited by experies schedules and the relications of branch of fices to go without productive employees for three for the days. Since we strated using WebEx in July 2000, we've trained \( \).400 people, and more of them had to leave the office? Schneider sizes.

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And in light of the recent terrorist attacks, analysts
predict that business for services like WebEx will increase steadily as companies seek to reduce airline

travet. Country wide estimates that it saved \$3.65 million from luly 2000 through August 2000 on travel-related expenses such as arither, ground trapportation, hereby and meals. Schneider says those savings take into account only hard-follar expenses and would be even more impressive if regained productivity was factored in because employees using WebEs training remain at their offices, they squeeze some work in, even on training days.

#### Look for Efficiency in Every Nook of Your Company

Efficiency and savings were the goals when Charlotte. Variation of the Bright Corp. On the Charlotte. Variation of the Bright Corp. On the Ining resources into their own intranerts. Catherine stancombe, Duke Energy's human resources e-business soot director, says that while the individual intraners' content was fine, the company wanted to reduce administrative and percent costs. The ensu-

ing search led to Plumtree Software.

San Francisco-based Plumtree's Corporate Portal

Plumtree Software
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What's the edge? Offers a hull fee
hard post of platform that's powered
by a patient pending massively parallel
pontal engine for scalability.

wore that's entire to install

offered Duke Energy an efficient way to put information on its 22,000 employees' desktops: Initiated hast December, the company portal has already made obsolete a hard-copy newsletter that used to be mailed to each worker's home address. Duke declines to say exactly how much money it has already saved using Plunttree but hints at a sever-figure sum.

#### Put Emerging Companies Through the Paces Baying a product or service from an emerging company is risky. "We've been burned by e-business-

ex. Sury. Suncomber. 'On the other hand, we've probably been branef to stim other companies.'

Duke Energy past potential wendows—large and small—through a figurous proof-of-concept enercise, according to FT archbert Churk Burch. 'We pull to the signs.' They have three to five days to get their syssuper- to the stime of the days to get their sysmaterials. They have three to five days to get their sysmaterials. 'Super- three to five days to get their sysmaterials, the stime of the stim

is often the least of your worries. The past 20 months have made IT managers all too aware that even wowner-reality.com vendors with great offer

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of information and talk

to a lot of existing customers," Hamblet says. "With emerging companies, you don't have that. You have to understand their funding, their management team — there's a lot of additional due dilizence."

Overall, IT leaders say that while emerging companies present obvious risks, those risks are outwighed by their assets: agility, eagerness and flexibility.

"We're not looking to work with every start-up that comes along." Hamblet says. "Our job is to see

how we can prosper. If that means using an emerging company, we're going to do that."

Ulfelder is a freclance writer in Southboro, Mass. Contact him at sulfelder@yahoo.com.

OHICK ONLINE EXCLUSIVE
DICK ONLINE EXCLUSIVE
Bead ment about how IT's shifting prantices have
affected buying decisions.

#### Running the Risk

IT feaders are very reach evere of the risks posed by start-sup. When Am Arbor, Mich-based pizza chain Domin's ParaulL.C. considered registering its 2P substance Inc. boses with fear Wes-Wan network application priority switches from Seria Clara. Cell-based Meditality Inc., "we sharth deat wit many small companies, so there was some concern," says Mike Cleviey, a

Destination is seen to see the control of the contr

cause Chutney's Pre/Loader caches Web content in a much more grander fashion than competing products. Pre/Loader lets corepointes cache is angle paragraph or even a word, this is peeding delivery of personalized content – a mapor schemitige to Education leteworks, which customizes content for handwide of achoot speteres. There even't 60 (vendor) companies out them dising

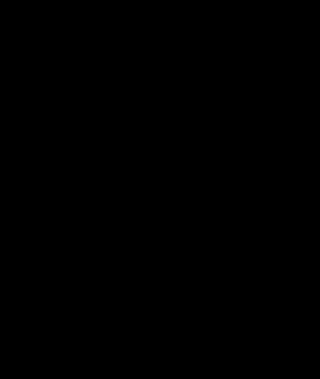
that. "Van Hosens says. There are maybe how."

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EDS satisfied on efficiency les form Virsual Inogénic. Michaels segibre people il lam lahely hap de presence from second less three anniyichty data at handspartner and more three persenting revience as consultante self-life. Statulantes selfs: "Whi ha tred out have or three good prospic." he says, "And good people are expension." Another laction to controlle in the full other a chance or an attention on the persenting of the controller of the self-life self-life. In the controller of the self-life self-life self-life self-life self-life. Self-life self-l

When Staples selected content management tools from Trig chrologies, it actually helped mold Trigo's final packaged apo ston, Trigo Enhapres. They maily worked with us, "say Staes" Lies Hamblet, vice president of business to business and are "Trigo actual like they had an opportunity to learn from us

> s fierbie." Stone (Hokker



#### **FMERGING COMPANIES 2002**

## ITGoesona Bargain Hunt

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According to Schneider, the results have been eyeopening. \*In [all of ] \*99, we trained 892 people [in live settings]," he says. That number was limited by expense, schedules and the reluctance of branch offices to go without productive employees for three to five days. 'Since we started using WebEx in July 2000, we've trained 4,060 people, and none of them had to leave the office." Schneider says.

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#### Look for Efficiency in Every Nook of Your Company

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made obsolete a hard-copy newsletter that used to be mailed to each worker's home address. Duke declines to say exactly how much money it has already saved using Plumtree but hints at a seven-figure sum.

#### **Put Emerging Companies Through the Paces** Buying a product or service from an emerging company is risky. "We've been burned by e-businesses," says Stancombe. "On the other hand, we've prob-

ahly been burned less than other companies." Duke Energy puts potential yendors - large and small - through a rigorous proof-of-concept exercise, according to IT architect Chuck Burch. "We pull in the top three [vendors wrine for any contract]," he

says. "They have three to five days to get their system up and running on a small scale," Burch says Plumtree won Duke's business "by setting up and running without a lot of custom coding."

But in the case of young companies, the technology is often the least of your worries. The past 20 months have made IT managers all too manne that mann

#### What's the edge? Horsons

time WAN conditions and shapes traffic so priorities are enforced and bandwidth use is restricted only

ings can vanish overnight, "With an HP or an IBM, you can read a lot of information and talk to a lot of existing customers," Hamblet says. "With emerging companies, you don't have that. You have to understand their

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Services below you ment the demands of designing and implementing architectures for long-term success. Around the globe, customers Jewesage Sun Professional Seniors" to gain competitive advantage by creation customized Sun ONE solutions that are tailored to their business



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Sun's industry-leading Imp technologies allow you to create end-toend platform solutions for the delivery of Web

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easily and effectively managed

# Untangling

Logistics are everything to these companies. That's why they got well-acquainted with their emerging partners before joining forces. By Mark Hall

ODGER HURST knew his company didn't have time to develop and test a Web-based inventory management system for its supply chain. So he rented it. The information services manager at \$4.1

billion Autoliv Inc. in Stockholm had been the product control manager at plants in Indianapolis and Madisonville, Ky., before moving into IT at the world's largest maker of auto safety restraint systems. That hands-on operations work gave him real insight into how the company's supply chain operation could improve.

One of his first moves late last year

was to enhance commun Autoliv and its hundreds of suppliers by adopting the hosted i-Supply Service from SupplySolution Inc. in Southfield, Mich. Because SupplySolution was a start-up, founded in 1999. Hurst also knew it

was important to give the company a serious test. "We linked up 12 of our SupplySolution Inc. vendors to i-Supply - our six best and six worst - to

see if operations would imments ober mannen in man prove," he recalls. The net result? "We no longer had to send faxes or make phone calls. No more finger-pointing or claims that this person or that one did not have the informa-

tion." Hurst says. Since the successful dry run, Hurst estimates that i-Supply has helped cut premium freight costs for Autoliy's Midwest plants by an astounding 92%, and inventory levels have failen by 32% because plant managers immediately know where parts are in the supply chain and how long it will take for them to arrive. The enhanced communications make it less likely that inventory managers will be caught flat-

footed without necessary inventory on hand, so they won't have to rush parts to their stockrooms.

In addition to the benefits of SapplySolution's outsourced software, Hurst says, "another advantage of

working with a small company is that they respond quickly to change requests." The need for responsiveness is a recurring them Users working with start-ups focused on operations

technology are seeking more than a top-notch help desk or service organization; they want to interact with company leaders personall Charley Eisele, vice pres-

Arzoon Inc. What's the edge? Enables companies and their trading partners to use a sonie ciettore: to procure, esecute, monitor and ident of strategic planning and administration at trans portation giant Union Pacific Corp. in Omsha, says that before his company's executives embraced a supply chain logistics an

plication from San Carlos, Calif.-based Arzoon Inc. they got to know the young company's leaders. Eiseld says Union Pacific uses Azzoon's software to show shippers the options they have in delivering goods, including the economic benefits of using railroads. "We naturally had a shared belief in the vision of the technology and the value that it would provide our customers," he says. "But we were also very impressed with the management team, in

particular (Arzoon's) CEO." Farid Dibachi has more than 20 years' experience working out logistics problems as co-founder and chief technology officer at Menlo Park, Calif.-based Diba Corp., a network appliances company bought by Sun Microsystems Inc., and as a former Hewlett-Packard Co. executive. His background. Eisele says, mitigated the company's youthfulness and helped encourage

Union Pacific's adoption of LIFE, Arzoon's software "Certainly, when you invest in a new company, you are betting on the horse, but you're also betting on the jockey," Eisele says

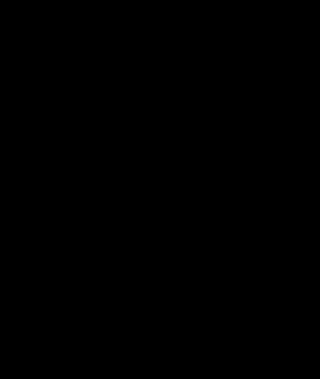
Ned Sherry, supervisor for business applications at Kinetico Inc., a privately held 300-person water conditioning company in Newbury, Ohio, says the same thing about Port Wash ington, N.Y.-based Prism Visual Software CEO Lorrsine

Keating, Sherry says being able to call a vendor's top executive with concern about a product gives small firms an advantage over larger ones. Kenting's retail and field sales team uses Prism's application to track deliveries and sales

But it's not just a personal touch that makes for a good partner, Sherry says. The vendor must "he looking into the future. And that's what Lorraine and her folks are doing with slick sechnology that's going the way the industry is heading."







# Untangling t

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guished pedigree as a spin-off from Royal Dutch Shell Group of Cos. "It would have been difficult to get my leeds and masters com-

furtable to work with a 58-person company, whether it's in London or Palo Alto." Wooddington says. But Shell's name and backing gave Kaleio the clout to win Unilever's business, because it was consid ered to have a solid future. The fact that Kaldo's data worehouse software provided Unilever with key performance indicators which brands were selling in which markets through which distribu-See changes - beined not management haven as well

working with a small company is that they respond aniekly forchange reamests." The need for responsiveness is a recurring theme

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Working with vendors that will be there when you need them is revenuel saws Great Crandal, director of application development at Flourisen Corn. a \$2 billion industrial magnification in Dallas. And having a future in business means prolitability That's one of the criteria he used when evaluating Salt Lake Dity-based consultancy SB Inc. Crandall says it's always impo

tant to ask the question "Are they making money?" he says, often determines the company's future.



#### Live Long and Prosper

Being a visionary is one thing, but finding a vendor that will be around in the luture is most important to Davis Waddington, European loods information management architect at Unitever NV in Rotterdam, Netherlands That's why he signed on with Londonbased start-up Kalido Ltd. to help manage Unitever's massave food distribution network. Despite Kairdo's youth, it carried a distri-

## Sold on Innovation

From enabling wireless customer access to streamlining complex sales processes, these companies turned to technology newcomers to help their sales departments get a leg up. By Mary Brandel

ANT SUMMES. Steve Larvis realized that he was going to need a good, solid partner to help with Alaska Airlines Inc.'s project to extend the Web-based system with wireless technology. But when Jarvis, the airline's vice president of e-commerce, looked around, most of the companies were startupe by nature, losing money and funded by leventure capital firms], he says leventure capital firms], he says leventure capital firms].

Jarvis faced the same decision that many IT executives encounter today—whether to take the risk of working with a start-up on leading-edge technology projects. But that's where Jarvis parted company with many of his peers. He did something that, surprisingly, they don't up often do: He checked references.

From the beginning, the idea of working with a start-up-was definitely a concern." Jarvis says. But with just a X-person team running Seattle-based Alaska Attlines 'S400 million revenue Web site, he knew he needed some help. "Wireless is a fairly fragmented space." There was no way we could deploy quickly, let alone support all these different devices."

Everypath Inc.
wnive-verypath.com
What's the edge? Provides
softwer that supports all modes
of interaction on handheld devices online brewone, user notincensors and off-line interac-

That's why Jarvis got to know the executive team at San Jose-based Everypath Inc. before he signed on with the company. He also studied Everypath's technology infrastructure ("They were as strong on

the back and as we seen. It is sayn't researched the venture capital finding and evers pole, with one of the partners. After all that research, larvis says he had lattle doors that Ferryards noval successfully hely he company cereof in Web-based detech in flight his company cereof in the Web-based detection. The special country flight is the work of the Web-based detection of the Web-based detection of the Web-based detection of the Web-based detection and don't be without the Web-based detection.

get at the heart of the matter," she says.

Barvis went a step further, spending half a day with
Palo Alto, Calif.-based ETnde Group Inc., another
Everypath customer. "I asked them about the speed
of deployment, quality of support, customer feed-

back on the application, where they were taking the system and whether they thought Everypath would he able to take those steps with them," Jarvis says.

Muray companies looking for a competitive edge in their sides and service operations are tributed as their scheduler of their service operations are tributed as their scheduler pattern. Whether they're parting wireless access into customers' hands or enabling competes actes into customers' hands or enabling competes actes into customers' hands or enabling competes actes processes with highly opolishing decompetence of the competence of the competence capabilities, many companies are partnering with less-established solvener furns to resp the benefits of innovation, responsiveness and leading-edge technology that these start-mon offer-

If you had saked Bill Muniford last year if he would intentionally choose to work with a start-up to beef up the sakes capabilities of his company's Web site, he would have said no. But after creating a 45-peer request for proposals, reviewing the responses of two dozen companies and then acking four finalists to create a proof-of-concept demo, that's exactly what Muniford and his term at Teletronia Inc. decided to do. And even with the full knowledge of the risk they assumed, they haven't recreted it.

"Consergent has been very flexible, very open to input and willing in modify the architecture of their product to meet our customer need," says Mumford, e-connecre manager at the 3b billion testing, measuring and monitoring company in Beaverton, Orc. "We would have preferred to work with a multi-hillion dollar corporation that had done this

30 times already, But our primary goal was to maintain the customer brand experience with Teleronia. It's part of what we had to deal with So Tektronia: those Comergent Technologies Inc. a Redwood Cip. (salf-based provider of business to-business e-commerce software, over established firms such as Oracle Corp., Titoly inc. SAP MG and Siebel Systems Inc., mainly for its case of use and good fit with Teleronis's own work culture.

#### Stay Ahead of the Competition

"The benefits for start-upol are their level of energy and enthusiasm and wanting to make things work," says Charles Young, solution rechnology manager at Hewler-Dickard Co. Young says he chose to work with The Cybrant Corp. In Mountain View, Callf, because it was the only company that offered the right technology to automate HP's complex salesprocess. Their focus is on us and making the project

The Cybrant Corp.

servicybrant.com

What's the edge? Simplifies
and automates all areas of seling, including deeping, product
selection and confeasition.

successful. That was the feeling I got from them every day." Young says.
And to the companies that go the start-up route, it's the competitive edge—not the size—that matters.

"We wanted to be upfront with using technology innovations and servicing our customers," says Kamalesh Dwirredi, ClO at ADC Telecommunications Inc., a \$3.5 hillion broadband equipment and services provider in Minneapolis. But when the company looked around a year asp for a wender that could

help it give customers order-status information via a handheld computer or cell phone, there weren't a lot of choices. It purtnered with privately held wireless start-up Air/Web Inc. in Allanta. The was our attempt to get a leg up on the competition," Dwivedi says.





ORIGING WITH NEWCOMER Everypath, Alaska Airlines was able to speed deployment of its wireless project the laster than we could have done corresives," says Stove Jarvis, vice president of e-commerce.

Air2Web Inc. mondaySala seem What's the edge? Supports al | tinue to exist or not." all major markup languages.

Size doesn't matter. Even with large companies, you doo't know if they'll con-That doesn't mean companies aren't taking precautions. "We knew it was a risk," Mumford says That's why Tektronix insisted on having vendor finalists build demos "to show their product did what

we needed it to do and prove it can do it on our site," Tektronix's system enables customers with prourement software from the likes of Pleasanton, Calif.-based Commerce One Inc. and Sunnyvale, Calif-based Ariba Inc. to use these systems when

purchasing hardware and software from Tektronix that need to be configured to particular specifications. "Procurement software has naturally focused on where the bulk of procurement is: pens, pencils, paper and the like. It does not handle configurable products well," Mumford says. The Tektronix system presents the end user with a configuration tool at the manufacturer site, which ensures that the customer

is choosing compatible components.

Tektronix minimized risk by making sure it could

work with the individual members on the Comergent team and targeting the vendor's software to a specific application. "The tool we were choosing was focused on the problem that had to be solved now," Mumford points out, "It had a known set of objectives; it wasn't a five-year development process. Even if Comergent does a 180 and goes off to do something else, we have a solution that's solving our needs." The company planned to measure the configurator's return on investment by looking at order vol-

umes and comparing sales force quotes from before and after the implementation. However, "ROI went out the window when the business fell off the edge" following the terrorist attacks on Sept. II, Mumford says. "The economy is so overriding that we're trying to figure out [the ROI question] ourselves." Like Tektronix, ADC

What's the edge? Provides an cut-of-the-box bool let that can be implemented quickly and inrated with many types of bork-end systems.

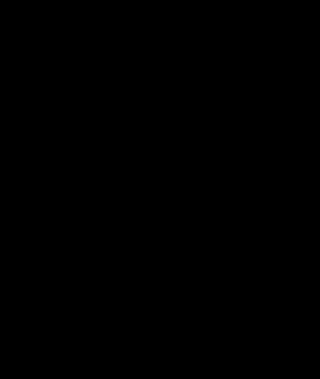
is rolling out its wireless order-status access system in small pieces. "Most of the companies in the wireless snace are small, and some will not be here tomorrow. The way we man aged the risk is that we

didn't invest a lot of money all at once," says Dwive di. So while the system, which went live in April. will initially be rolled out to a subset of the company's 900 account managers, it may eventually be extended to ADC's 2,000 engineers to trigger billing. procedures, as well as to employees for self-service ADC also did its homework before signing on the

dotted line, researching Air2Web's venture capital funding management credentials and the viability of its business plan. "If it's a newer organization, it's smart to do some checking into its business plan," says Roswell. "What are their business goals? Do they have a quick exit strategy, or do they intend to be in business for a while?"

Despite the risks of working with start-ups in the sales and service space, many companies agree that there are ways to minimize risk and that the benefits make the remaining risk worthwhile. Indeed, it's hard to say in this unpredictable climate whether even the established vendors will be around. "We keep monitorine the situation," says Dwivedi, "Whether it's Air2Web or AT&T, we don't know who will get acquired, bought or mersed."

Brandel is a freelance writer in Newton, Mass





BY WORKING WITH NEWCOMER Everypath, Alaska Airlines was able to speed deployment of its wireless project "months laster than we could have done ourselves," says Steve Jarvis, vice president of e-commerce

Air2Web Inc

Size doesn't matter. Even don't know if they'll con-What's the edge? Supports at that doesn't mean

companies aren't taking precautions, "We knew it was a risk," Mumford says, That's why Teletronis insisted on having vendor finatists build demos 'to show their product did what we needed it to do and prove it can do it on our site."

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#### No Stone Left Unturned

Few companies enthusiastically turn to a start vio to solve a business need, but sometimes after scounne the market, they're

happy they did At Hewlett-Packard, for example, solution technology manacer Charles Young needed a partner to help automate the company's very complex sales process. When customers game to HP to purchase an application, they needed help sizing the application, planning the environment and getting a ballpark price on what the intrastructure would cost. Prior to automating this task. "we used to gather data out in the field and send it to the engineer, who would do the sizing and determine the resource recurrements to run the application." Young says. "The

purchasing hardware and software from Tektronis that need to be configured to particular specifications. "Procurement software has naturally focused on where the bulk of procurement is: pens, pencils, paper and the like. It does not handle configurable products well." Mounfard says. The Teletronix system presents the end user with a configuration tool in the manufacturer site, which ensures that the customer

is choosing compatible components. Telatronis minemized risk by mature care it could work with the individual members on the Comergent team and targeting the vendor's software to a specific application. "The tool we were choosing was focused on the problem that had to be solved now." Mumford points out. 'It had a known set of objec-

reconners would design the computer systems and create a diagram to send to the configuration center, which would arrange a parts list and penerate a quote." The whole process took anywhere from two days to a week to complete

Young's goal was to cut the whole process down to one hour. "That meant there was a lot of engineering knowledge to be put into a look, and that knowledge was different for every application you were soling," he says.

Young found that many companies came from the product confireceting entire which was too smolistic. Others offered outded select sections, but these were based on predefined selection and HP needed a more dynamic product-design system. Knowl edge management systems could capture and store knowledge but weren't as effective at applying that knowledge. Artificial intelli gence systems required that every possible scenario the user might tives, it wasn't a five-year development process. Even if Comergent does a 180 and goes off to do something else, we have a solution that's solving our needs."

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Comergent Technologies Inc. What's the edge? I have a of dischard father a

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technology to power your company's new.computerworld.com/s?24761

come up with be captured, "which would be impossible for us to do." Young says.

Finally, he considered newcomer Cybrant because another group at HP had used the company for a hardware configuration project. To resize of a would provide the pay foundation of what we needed to do." Young says. "It could capture logic, it was easy to maintain, and it was based on something called twith tables " which cut down the number of pales you prend to apply in November 2000, Young handed Cybrant a detailed specification and asked for a proof of concept. "In January, we had but toocher the software components that were also to actually deliver that functionality," he says. In August, HP launched the system, which has not only met but also excee

the original goal of one hour - it delivers in 20 minutes.

## FIVE BLATANT LIES

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Emerging players helped these companies reach out to customers with technology that their marketing departments use to dig through valuable data and communicate efficiently over the Web. By Stacy Collett

HEN HONEYWILL IN FERNATIONAL Inc. a \$25 billion technology and manufacturing councy in Morrist travel spending last year, even sakes and material rise when the properties travel spending last year, even sakes and material rise were custailed. One Honeywell group in South Bend, Ind., fared that the cutback would jeopardiae its work with a prospective existence in England.

But with the help of browser-based Web meeting services from start-up Place Ware Inc. in Mountain View, Calif. Hone, well was able to meet with the custom state of the context with the context with the context of the context of the context. Since then, the technology has saved Hone and other meeting maintain barrad sof dollars in travel.

and other meeting materials for a likely meeting and them make a for any consisting and suppressed as any time and continued to be at technology that saves the commany money. For marketing departments.

that means finding software that helps companies stretch their Web inversetments. Many companies also want software that can perform customer analymost of the software that they want and it also means opening the lines of communication between marketins and IT decoratements to clearly cornere resmarketins and IT decoratements to clearly cornere res-

pectations and technical realities.
Start-ups are a viable option because they offer niche expertise, personalized attention and lower prices, compared with established players. Here's some advice on the risks and rewards of betting on the newsomers.

#### Have a Contingency Plan You Could Finish on Your Own Crossmark Holdings Inc., a consumer packaged

goods services and marketing company in Plano. Texas, wanted software that could bridge the separation among its thousands of customer contacts by cross-referencing relationships and affiliations. But

speed was a problem.

The marketing department was intrigued by start up NeoCore Inc. The Colorado Springs-based com-

puny has developed an XMI. database management system than eliminates physical database design and one store and index XMI. data on the fit; But the IT department was less enthussiastic. The idea of an designing a complete database upfront that would encompass all of its potential uses attacked the fundamental beliefs held in IT.

NeoCore Inc.
www.neocore.com
What's the edge? Stores and
ndexes at XML date on the fy,
allowing compense to quickly
react to changing business envi-

mental beliefs held in IT, recalls John Thompson, president of Crossmark's performance group. "Developers say, 'Let's think about all the ways this is going to go, so we can build this in.' In this

As NecCore's first effect. Coasteart initially strengted with implementation because You don't know what you don't know.' Thompson says, that after a year of work. NecCore's system is up and running, and Crossmark has isst upgraded to Version 2. The firm has worted with emerging companies before and has taken measures to protect itself. For instance, Crossmark stipulates that if the start-up fails, it begins the software. Il cross and source code.

"We fee the confident enough that we

case, you don't have to do that," he says.

could keep the engine running" whether NeoCore survived or not, Thompson says.

#### Find a Partner That Understands Your Objective

ment organization to put a reliable product together.'
After several weeks reviewing the players in this
niche — mostly newcomers — Zapdata went with
start-up Revenio Inc. in Burlington, Mass., because
its application could innule multiple channels, in-



# Connecting With Customers



dyst at Gigo Information Group Inc in Cambridge, Mass, "That's how lone you can cou oo that company surviving oo their current funding and focusing on the problem you're trying to solve."

ended up making the choice." Gaither says. A solid business plan and adequate funding were also part of

Gaither advises companies considering using a start-up's applications to feel comfortable with the leadership of the company, investigate all the option and know what you want. "You can do any company a disservice by not being clear," he says. In return, start-ups give extra attention to clients that under stand their application's objectives and provide valu-

cluding e-mail, fax, telesales and direct market

the equation, he adds.

and could be installed in-house, not hosted. More im-

portant, "they made us comfortable that they understood the full potential of these applications. That

Since installing Revenio's software a year and a

ultimately buy informa- tion has gone up 64%. But measuring return on in- vestment from a start-up can be tricky. Observers say it's likely that a start-
say it' up wi

the point when the customer sees benefits. "We tell companies, 'If you're going to go with a small vendor, make sure you get payback in 12 to 18 months," says Erin Kinikin, a customer relationship

Take Low-Cost Risks That Won't Break the Bank Other companies with less mission-critical mar keting needs are turning to start-ups simply because they're less expensive than more established players. Teradyne Inc., a \$1.8 billion supplier of testing equipment for the electronics and telecommunications industries, was looking for an application for its

customer-facing Web site that could provide product specifications, share drawings and access complex documentation and shipping status. The Bostonbased company chose NetVendor Inc. in Atlanta because its application was tailored for the electronics industry. Michael Schmidt, IT manager at the Tera dyne Connection Systems division, says the firm could have gone with a more established player, but

#### NetVendor Inc. What's the edge? Allows mon turers to leverage the inter-

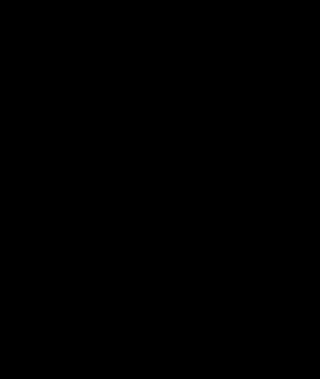
cost was a big factor "With most of the oth players, you're talking million-dollar investments, says Schmidt, "I Net Ven dor's cost! was low enoug plex product sales, service and that if it turned out to be a mistake, we would chalk it

up to learning about the technology and look at it in another two years." However, NetVendor's product has been working successfully at Teradyne since January. Schmidt says not to expect a fully baked product from any start-up. Instead, it's important to under-stand the company's vision, he adds. Also, evaluate

We felt confident enough that we could keep the engine running [whether NeoCore survived or not l. JOHN THOMPSON (LEFT), PENFORMANCE

the people and understand the financing Though there are risks involved by going with a start-up over established players. Thompson says, a calculated risk could be worth it. "Companies migrate to newer technologies," he says, "Whether they're from new or old companies, there are no guarantees."

Collett is a freelance writer in Sterling, V





cluding e-mail, fax, telesales and direct marketing and could be installed in-house, not hosted. More important. "they made us comfortable that they understood the full potential of these applications. That ended up making the choice." Gaither says. A solid business plan and adequate funding were also part of the equation, he adds.

Gaither advises companies considering using a start-up's applications to feel comfortable with the leadership of the company, investigate all the options and know what you want. "You can do any company a disservice by not being clear," he says. In return. start-ups give extra attention to clients that understand their application's objectives and provide valuable feedback Since installing Revenio's software a year and a

half ago, the number of registered Zapdata users who ultimately buy informa-Revenio Inc. tion has gone up 64%. But measuring return on in-What's the edge? Allows for vestment from a startain managing and automating cus can be tricky. Observers

say it's likely that a startacross any marketing change! up will either change focus or be acquired between the time it's selected and the point when the customer sees benefits. "We tell companies, 'If you're going to go with a

small vendor, make sure you get payback in 12 to 18 months," says Erin Kinikin, a customer relationship management analyst at Giga Information Group Inc. in Cambridge, Mass, "That's how long you can count on that company surviving on their current funding and focusing on the problem you're trying to solve."

#### Take Low-Cost Risks That Won't Break the Bank

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#### **Bend Without Breaki**

We felt confident enough that we could keep the engine running [whether NeoCore survived or not l.

> JOHN TROMPSON (LEFT), PERFORMANCE REQUIP PRESIDENT, CROSSMARK HOLDINGS

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Collett is a freelance writer in Sterline. Va.

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Outsourcing at Unitrys explores, "Outsourcing is absolutely centrail to the Linious comorate strategy. Our in-depth knowledge and expertise in many vertical markets set us apart. allowing us to deliver that entra mensum of volum to our clients."

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and analytical tools from emerging players are helping companies leverage their huge stores of data for financial gain. By Melissa Solomon

Data warehousing

HEN RICKY CORONEL, A project manager at Nike Inc., was charged with finding a new data warehousing tool in 1999, be didn't take his mission lightly. Coronel needed a system that would let the \$9.5 billion Beaverton, Ore.-based shoe and sports apparel maker quickly generate a variety of financial reports requested by its

divisions around the world. He looked at products from startups and established vendors and ultimately settled on DecisionPoint for Financials from start-up DecisionPoint

Applications also in Resourten It was the only product that offered everything be needed: It's off-the-shelf, flexible, easy to imple-

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ment and comes with a high level of support. "They made me feel like I'm their most important customer." says Coronel. As the econo continues to weak

en, data warehousing and analytical tools that help companies reduce business expenses and enhance revenue are finding a comfortable niche, says Robert Anderson, a research directs

at Stamford, Conn.-based Gartner Inc. \*Now more than ever, enterprises need to leverage the massive stores of operational data found within [enterprise resource planning) systems and begin exploiting it for competitive advantage," he says, "The pendulum needs to swing from expense control alone to . . . increasing profits."

#### Take Advantage Of a Nimble Start-up

Mark Dickelman, vice president of mobile commerce and wireless at Bank of Montreal Group of Cos. in Quebec, ol that could alvze delivery ests and help pin-

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sint inefficienes so the bank suld support ditional chan els of electronic divery while lowering costs across the board He says he was im-

pressed with the time it took to implement Austin, Texas-based 724 Solutions Inc.'s Financial Services Platform. \*Despite the challenges of being first to market with a new technology, we were able to launc

in under six months." Dickelman says. There were any number of possible "showstoppers along the way, he says, but the project turned out to be a success, and Dickelman says he would recommend the

company to his collesgues "Hindsight is always 20/20," he says, but there are very few things that could or would be changed."

#### Craft an Airtight Contract

looked mature

Even customers that have been satisfied in past dealings with start-ups have concerns about signing on with a technology newcomer. In fact, Coronel had previously worked with a start-up that folded during a sales force automation project, so be questioned DecisionPoint's long-term viability. "That was always a concern," be says.

But we looked at the product, and it To be on the safe side. Coronel save he had a contract drawn up that was

mutually beneficial, but favorable for Nike." When working with any vendor. but start-ups in particular, Coronel suggests hiring someone who can anticipate problems with the vendor relationship and negotiate an ironclad contract. "[Hire] a good negotiator and somebody who does contracts really well ... to minimize any risks," he says.

#### Find the Product With an Edge When Linda Brett, a business intell

eence architect at Royal Bank of Canada in Toronto, was looking for a tool to analyze the financial performance of the company's portfolio of products, she considered both start-ups and established vendors. Mountain View

Calif-based Alphablox Corp.'s product stood out because it wasn't traditional. she save "It was architect-

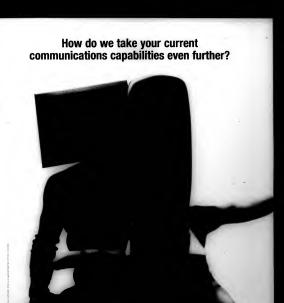
Alphablox Corp. ed for the Web, as appased to some What's the odge? other technology integrates Web-based that had been applications directly into rearchitected but oness processes and wasn't quite what across instruction syswe were looking toms, enabling real-time.

for," says Brest \*Our users had some set ideas as to what they wanted this to look like and be. And a lot of other products weren't customizable. Alphabiox 3 offers real-time Webbased data analysis, so data can be ana-

lyzed on the fly, with no delay in the time it takes to input and cleanse that data, says Gartner's Anderson. The product was also relatively quick and easy to implement, adds Brett.

Because Alphablox 3 is so intuitive, flexible and inexpensive compared with competing products, Brett says she'd recommend it to others, even in today's economic climate. "I hope [Alphabiox has] what it takes to make it through, because they have a very good product," she says.

UNISYS



These upstart companies are helping to lower IT's total cost of ownership on the desktop by reducing support needs and monitoring hardware and software. By Julekha Dash

OWERING TOTAL COST OF OWNERSHIP Was a key reason why Mike Grimm, former chief technology officer at Dallas-based HO Global Workplaces, took a chance on a start-up. In September last year, the \$550 million

office outsourcing provider began using Dreamservice, an enterprise desktop manage ment service from Fremoot, Calif-based Everdream Corp. Instead of shelling out \$7 million to purchase 2,500 PCs and software, HQ is paying Everdream a monthly fee to replace the bulk of its PCs with Dreamservice and to provide consistent software

Everdream Corp. What's the edge? Offers man aged desisting services combined with help drok, remote managepropertary back end manage

ment system.

and daily backups. The project is expected to be completed in March. Clients who use HQ's office space "want stateof-the-art PCs, including software and daily backups," says Grimm. In addition, the company went through 51 mergers and acquisitions of regional exec-

nology among desktop PCs. Using the subscriptionbased desktop service will allow HQ to reduce operating expenses by 20% by eliminating the company's internal belo desk and other support staff. "A lot of companies are afraid to man age the desktop because it's hugely labor

iotensive," notes leb Bolding, a senior analyst at Enterprise Management Associates in Boulder, Colo. When HO began its search for a subscription com-

utive suites last year, resulting in inconsistent tech-

puting service, Everdream's "all-in-one" service was unique in the market, says Grimm, who has since left HO and joined Eventream. To protect against the risks of working with a start-up, Grimm signed on Everdream for a 30-day

pilot test, during which the vendor deployed a few hundred machines and kept HQ employees up to date with daily status reports. Grimm also spoke with analysts, venture capitalists and Hewlett-Packard Co., one of Everdream's key partners. "Initially, the different parts of my team were divided," he says. "IT people in general can quite

often have a very cynical attitude [toward] service firms." To reduce skepticism. Grimm involved every IT division in status meetings. Firms like Computer Associates International Inc.

and Tivoli Systems Inc. are "relatively weak on the

desktop," leaving companies like Everdream to carve a niche in the desktop management space, says Bolding. "More and more customers need automation. Updating software is now manually intensive." Tony DeVoto, Windows NT systems administrator

at Montvale, N.J.-based Volvo Finance North America, agrees. He began using enterprise configuration management software from Woodland Park, Colobased Configuresoft Inc. a year and half are as

a troubleshooting and compliance tool. Though lects, centralizes and reports on all Windows NT and 2000 hard-DeVoto doeso't have any dollar estimates, he says

the software lowers ownshould a secure of a self-or ership costs by monitoring software and hardware, making it easier to manage systems and detect problem While other companies offer systems manage-

ment, DeVoto chose Configuresoft because its product met the company's exact specifications, be says.

Dash is a freelance writer in Charlottesville, Va.

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#### Technology start-ups are under intense scrutiny from investors and customers. While employees learn to live with slimmer benefits packages and used cubicles, executives must learn how to make customers and investors feel safe. By Robert L. Scheier

USTOMER TIM CHAMBERS SEES fewer startups lining up to pitch him on snazzy new multimedia tools. CEO lim Acouzyiya sees a board room of

CEO Jim Acquaviva sees a board room of investors with a litary of pointed questions.

Venture capitalist Promod Hape sees ramshackle cubicle partitions where well-appointed furnishings might have stood. It all started with the do-come crash and resulting crunch in capital spending, and it has now taken a turn for the worse with the events of Sept. It and signs of an honest-to-poodness recession.

Equity investments in venture backed companies fell 27% to SE Dillion between the first and second quarters, the fifth straight quarterly drop, according to marter the treatment for Menture Che Corp, in San Jose. Venture capital firms say that they're funding only those start-upt that can quickly deliver proven return on investment to their outsomers and that they're scruintaing start-ups far more diligenoity before opening.

their checkbooks.

The bad news for Ti is that there are fewer companies developing innovative products for the likes of Sony Pictures Digital Entertainment, where Chambers is sernior vice president of the Advanced Pistom Group. Chambers' group is on the lookout for technology that can help the subsidiary of \$83.5 bill libos Sony Gorp, combine its movies, TV shows and

games into broadband entertainment offerings.
"We're at a point right now of kind of an overreaction to the dos-com meltidown," he says. The good
news for IT is that the start-ups left standing are
likely to have more unique technologies, stronger
management and deeper pockets than many of those
pitching customers a year or two ago. And with the

economy so tough, they're more willing to trim prices or make other concessions to win business from customers. Here's what some of this year's emerging companies are doing to save money, squeeze cash from

#### investors and gain the confidence of IT managers. Slow Down the Burn Rate

A company's burn rate refers to how quickly it spends its investment money. Investors want the flame turned down — way down. "That's the first topic in most of our board meetings," says Acquaviva, CEO of Kada Systems Inc. in Burlington, Mass. Kada, Gounded last year, claims

to have developed a Java Virtual Machine small enough to allow handheld devices to run more robust energyrise applications than before. Acquaiva is a veteran of start-up scratin, having co-founded application development tools vendor Revisition Technologies inc. in 1987. Two or three years ago, he says, venture capital firms would have pushed him to "hire staff is fast as you can, get as much of the team toogther as you can and gain market of the team toogther as you can and gain market.

ker share," in the belief that profits would eventually follow.

Now investors in a second or third round of funding want to see a "fully funded" business plan, say observers, meaning that the current round of eash will be the last rouisrds before the commany be-

#### Kada Systems www.kodarystones.com What's the edge? Java Vrt.ad Machine allows mobile users to run more robust applications.

comes profitable. Kada, which has already raised \$5 million, is "getting very, very difficult questions and an enormous amount of scrutiny" from investors about everything from its VC

technology to the overall wireless market as it seeks another 510 million in finding, 2019 Acquariva. Some investors dole out funds only when a startup reaches milestones, such as completing a successfilip fundator or enching a certain revenue level, asys Doug Robertson, a former entrepreneur and now a principal at Crescendo Ventures Inc., a Palo Alto,

#### Change Hiring Strategies to Suit Market

Calif., venture capital firm.

Start-ups are also rethinking their hiring strategies as the market changes. Kada had expected most of its revenue to come from selling software development kits. Instead, both IT customers and resellers, such as Cisco Systems Inc., want to use Kadris wireless technology bundled with their own products or services and pay Kada only when those products.

## All Eyes Upon Them

## **EMERGING COMPANIES 2002**









or services begin making money, says Acquaviva. As a result, he says, Kada is focusing on hiring topnotch technical staff to complete current projects before ramping up sales and marketing to attract

NetMotion Wireless Inc., a Seattle-based develop of wireless remote access software, has also slowed sales hiring while it figures out through which channel — direct or resellers — is best to sell its software. With most of its heavy-duty engineering team hired since its founding in March 1999, Mellamox Technologies, a Santa Clara, Calif., developer of chips for InfiniBand (a high-speed computer architecture designed to replace today's PCI bus) is now hiring more marketing and sales staff.

are making do with slimmer benefits packages or used cubicles for their employees. chip sets to ease development "For some of these folks, it's very hard to

Besides postponing or shifting hiring, start-ups

imagine that [they're] going to sit in a cubicle that's got stains on it," says Haque, a managing partner at Norwest Venture Partners in Palo Alto, Calif. At NetMotion, "the benefit plan isn't quite as rich"

as it had been at WRO Inc., from which NetMotion was created this spring, says President and CEO Craig McKibben, and "we still don't have any administrative help."

## Show ROI for Customers and Investors

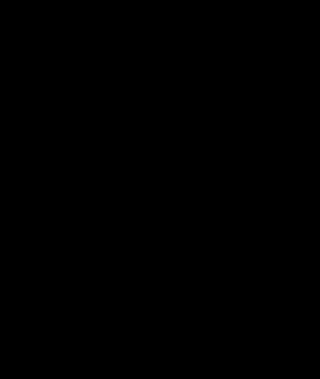
To a far greater extent than a year ago, investors and customers demand a solid return on inver from start-ups. "That whole concept of ROI - we haven't heard that term in the last five years," save Haque. But now his firm screens to see which com punies to fund, placing a heavy emphasis on making sure their products and services will deliver solid

NetMotion snagged its first \$8 million round the midst of the funding slump. It was a lone, six-Kibben, with investors

grilling him specifically about the business benefits of NetMotion's software and how the company plans to sell it. Investors acknowledged that "we had a deep technology which can accomplish a lot of things," says McKibben. But he says he had to expl to them how it would fit into the market.

value to customers of funding in March, in month haul, says Mc-

Investors are taking the long view now. They look for multiple exit strategies, or ways to recover their money, if a start-up never has a lucrative public stock offering. Before investing, says Acquaviva, venture capitalists also spend more time analyzing which firms might be willing to buy a start-up, and for how much, if the start-up never does go public. Scheier is o freelance writer in Baylston, Mass



## **EMERGING COMPANIES 2002**









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Schejer is a freelance writer in Boylston, Mass.



Want to do further research on start-upo? For resources to help you dig into the fauncing and management of energing companies, check out.

## Inspecting Credentials

A start-up that has secured costs from a venture capital firm has been put through the poice. But there's ettl planty that I'll mangers can book for when deciding to invest in the technologies. Promod Heyar, a managing partner at Norwes Venture Partners, says I'll casioners should evaluate not only the characters and executive and the start and temperate harm

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Menagers, investors or board members who have been through bed times as well as booms can help impose a her doctoine on spending and introduce the start-up to imper

through bad times as well as booms can help impose a health discipline on spending and introduce the start-up to imper distribution or manufacturing partners, observers say. Board more bors at recomity failed start-upor three is file more less in the sey. Those, says Alac St. John, president, CED and co-founded of online entertainment technology company Wild Engand the Alacon with the concess weeken could and a strong manufacturing.

Along with the proper venture capital and a strong manage ment tent. IT managers should book for start upo with 12 to 2 months of cash on hard, recommends Doug Robertson, a for ner enterpreneur and new a principal at Operando Venture. Tim Chamban, sentor vice president of the Advanced Pletform Group at Sony Pictures Digital Entertainment, says be looks for inneedle inchnology, a trustworthy management leaving and strong feeral booking. But he doesn't have a single littuux less for how many months of funding a stairt up mast lever. If they is a short improvement and a format of the months of the stairt in the cash on hand to complete the job, that's line, agrees Richard Same, devictor of interactive manifesting at 185 Superstation his, a cable IV network in Adartis. If they're a long-term partner, then we go dut a throw a little man sittle more closely. Tumor is using

firms might be willing to buy a start-up, and for how

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Both Tumor and Chambers say they have significantly in creased the scurling of start-yea in the past year but have always played it sale. Both say they have long increased on protections such as bability to him developers insen a st us if the company does not of business. But meltine of their

reports a major problem from the failure of a start-sp. in fact, the downton has made a ceans for customers as well as investors to response to two like the certy 70s than the left standing. "It's looking a bit more like the certy 70s than the mad- to late 70s," asp. Jan Acquava, CEO of Most Systems. "If organization, and the vendors who (are resalters), are usin-

- Robert L. Sch

With little venture cash to go around, the technology startups earning funding are the ones with credible business plans and value for IT. By Pimm Fox

R MANY FECTINOLOGY STARLEDS ITS 101 en a lot harder to make the grade with yen ture capital firms. Funding is now reserved. for established start-ups that need additional money or for those with focused business plans that detail revenue and profit projections within a short time frame. For IT buy ers, that decline in causty investment spells wood news: Their current syndors won't be abandoned by their backers and will be held more accountable for generating real, ongoing revenue

What a difference a year makes, Established comanies with venture arms previously believed they had a golden touch for creating winning companies but they have beaten a hasty retreat. The amount of money they invested in the first half of this year was 5353 million, compared with \$3.8 billion in the first half of last year, according to a Pricewaterhouse Coopers Money Tree Survey conducted in partnepship with San Francisco-based research firm VentureOne Corp. (see story at right). Initial funding (seed and Series A rounds) for start-ups declined they received only about 19% of the total invested from the first quarter's record less:

"The raw dollar increase in later-round funding shows venture capital firms are stand ing behind their existing portfolio companies. They're focusing more resources both money and time - on building those businesses," says Tracy T. Lefteroff, global managing partner of the venture capital practice at Pricewaterhouse-

Country in San love The message to emerging companies looking for funding is clear. Show a profit quickly. "I think the patience of some investors is exhausted," says Kirk Walden, national director of the Money Tree Survey at PricewaterhouseCoopers, "Burn rates are bring slashed to the bone." The present climate is a bit of a catch-22, he says "To admit you gave too much monex too early is to also admit you didn't apply the money efficiently to the business model." Walden says. "You had companies using start-up money to advertise at the Super Bowlesometimes they spent more on stunts like that than they had in resenue. The old reality of the market was that five out of 10 new companies would go belly-up. Two or three would do OK, and one or two would do well," he says. The heady days of 1999 changed that model; as many as eight of 10 companies languished while two were successes. Ironically, that translated to more risk for IT busers because the chances of a company flamme were greater. Investors didn't mind that 80% of their investments were write-offs because the remaining 20% netted them such incredible returns. Carrently, with a more conservative investment mentality, the emerging companies that are receiving funding are viewed as more serious contenders with

staying power." Iotal annual venture capital investment of over \$20 billion - the current run rate -

would be over all historical norms, except for 1999 and 2000," says Walden.

Current investment levels indicate that about 1,500 companies will get funding. "What's so bad about that?" asks Walden. There's a new, healthy respect for risk from venture capitalists and entrepreneurs. be says D

## By the Numbers

in start-ups in the quarter ended June 30, \$1.8 billion was earmarked for communications companies, \$1.6 billion for ere firms and \$563 million went to information service rding to the MoneyTree survey. Of these, software, infra structure, database and IT business service took more then \$4.5 billion. Surely a hefty sum, but in the same quarter a

year earlier, the venture capital backing for Internet compos nies was \$13.8 billion. Of that total, Internet companies absorbed the flow's share: about \$5.6 billion in additional and new funding. (Note: Figures don't add up to \$8.2 billion due The overall \$2.2 billion decrease in start-up funding from

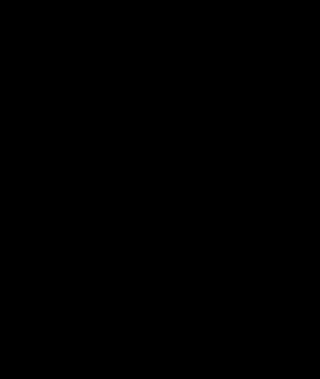
the first quarter to the second quarter can be attributed to a drop of \$1.2 billion (from \$3 billion to \$1.8 billion) in the communications and networking segment. Nearly every subset of communications and networking was hit hard, but fiber optics and photonics companies, which had received the ma restments for the past year, were the biopest losers as in the business services segment and the so let accounted for the remaining \$1 billion. For the much-watched internet-related investments, which

cut across all industry segments, the descent continued in the second quarter. Funding fell to \$5.7 billion, a 28% decline on the prior quarter and the lowest in two years. All interne bsectors dropped. Most notable was internet infrastruc-re, which fall 45% to \$1.3 billion, internet-mixted softw nts held up the best, falling just 8% to \$1.7 billion. And while the total venture money for all companies repr ated a decline of 21%, that was less than the 41% decline

rded in the previous quarter. In the second quarter, 569 s received funding, down from 752 in the first quart

ted big landing this year from the venture capital





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withing copies arms are same ing behind their existing portfolio companies. They're focusing more resources both money and time — on building those businessex," says Trucy T. Lefteroff, global managing partner of the venture capital practice at Pricewaterhouse-Coopers in San Jose.

The message to emerging companies looking for funding is clear: Show a profit quickly. It think the patience of some investors is exhausted, "says Kirk Walden, national director of the Money Tree Survey at PricewaterhouseCoopers." Burn rates are being slashed to the bone. The present climate is a bit of a

catch-22, he says. "To admit you gave too much monev too early is to also admit you didn't apply the money efficiently to the business model," Walden says. "You had companies using start-up money to advertise at the Super Bowl: sometimes they spent more on stunts like that than they had in revenue. "The old reality of the market was that five out of 10 new companies would go belly-up. Two or three would do OK, and one or two would do well," be says. The beady days of 1999 changed that model; as many as eight of 10 companies languished while two were successes. Ironically, that translated to more risk for IT buyers because the chances of a company flaming were greater. Investors didn't mind that 80% of their investments were write-offs because the remaining 20% netted them such incredible returns Currently, with a more conservative investment mentality, the emerging companies that are receiving funding are viewed as more serious contenders with staying power. "Total annual venture capital invest-



would be over all historical norms, except for 1999 and 2000," says Walden. Current investment levels indicate that about 1,500

Current investment seven instruct that about 1500 companies will get funding. "What's so bad about that?" asks Walden. There's a new, healthy respect for risk from venture capitalists and entrepreneurs, he save. B



Quick for a look at some of the start-up standouts that nethed tig kinding this year from the venture capital time.

Who's Getting The Money? As in The and valuability is and another to the and valuability is and another to the another to

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NTT/VERIO

HTT Communications Group Offices Apart MA - built - M. - house - investory - industrial - Report - Industrial - Indu

## **EMERGING COMPANIES 2002**

## The Top 100 to Watch

## How We Picked Them

To identify and select the Top 100 Emerging Companies for our special section, Computerworld limited companies to normalie themselves

on our Web site from May 28 through June 29. To qualify, companies had to be coporatiloused, lar prolife vertures with less than \$250 million in revenue and founded no earlier than 1990. Qualified companies also had to have an immoviety product or service salicitied by Dec. 31, 2000, as well as qualiforme references, to be considered, companies had to have a management team in place (nather than one per-

son acting as CEO and vice president of marketing, sales and so on).

Nomination forms were categorized by market segment, A panel of Computativecrid editors. nevewed the forms and selected finalists in each segment. The finalists' nomination forms were then sent to a panel of IT industry influencers – sentor level executives who are both

provides and sease of IT.
They are the following: Join Carrow, director
of picked IT securing at Weel? Premineutricals.
Cathy Motiva, war president of IT and the National
Retail Finderston: Barry Kaplers, DO and vice
received or of revindent on spitners at Bosou ISSA
Inc., Andle V Mensles, vice president and DO
and the Carrow of the National Securical Securing and Pleasta Doron. Lamp Pleastan, Declaring Pleastan, Declaring

won president and general manager of wireless

and Internet strategies at Polyroid Corp. Ken

Ross, CIO at Nielsen Media Research Inc.; Bob Schwertz, voc president and CIO at Pleasearch Management Information (Schmiology Services Co.; Priscilla Tate, director of the Technology Managers Forum, John Weiller, dhief Innoviedge offices, chief technology officer and service

vice president at Black & Vashch, and Patrick Wis. vice president of a commerce at Landsite System in.

The panel of IT influences reled the final-sis on the following characteristics:

The company and at technology offer demonstratible what to composite IT operations, the product or service addresses problems or challenges that IT impraces lines.

. The company is innovative: the conduct or ser-

wce presents a new and creative approach to an C IT issue and is visible.

The company demonstrates signs of an ability to execute its strategy (evenue, revenue growth, landing and a stable management feare). These scores were located. Companies with the highest scores overall were selected for our Emerging Companies to Welsch in 2002 lest and placed into the most appropriate market cateoric. They are located here in placebased order.

- Allison Wright

COMPREY MAKE	LOCATION	WED ADDRESS	CEO	YEAR FOUNDED	HAMBER OF EMPLOYEES	PRODUCTS OR SERVICES
Application corriers.	descriptment tools				- 1	and the state of t
Carl Corp.	Boston	www.cotcom	Robert A. Young	1966	140	Surge 1.0 Software Environment. The Surge Lab Integrated Development Environment Beta Version 4.0, Carl Content Language Version 1.0
Kada Systems Inc.	Burington, Mass.	www.loudaryotoma.com	Эт Асцияли	2000	29	Kada Mobile Pheticen for Jene 1.5, Kada VM, Kada Mobile Developer Stadio Alliance Program
Matel Seletions Ltd.	Westwood, Mass.	www.mdek.eem	Vochi Sloren	1996	120	Black Box Flight Recorder for Sollware 3.5, AppSight User, Server and Manager editions 3.5, AppSight Code 3.0
Relativity Technologies Inc.	Cary, N.C.	www.relativity.com	Vivel Wadhire	1967	175	RecueWare for ADW 1, RescueWare 6.0
SDI Inc.	Salt Lake City	www.ablookina.com	Ned Stringham	1997	750	Enterprise and supply chain management systems
Surebridge Inc.	Lexington, Mass.	www.sarebridge.com	Stephane Khurana	1967	250	Application implementation, management and hosting services
Continuer relationship	in management self				-	Contraction of the Contraction o
Anthrio Solutions	Columbus, Ohio	www.astalassialions.com	Joe Sanda	1996	40	PowerCenter: PowerCenter Ernal and PowerCenter Chat
The Operant Corp.	Mountain View, Calif.	were spirout seen	Dave-Buchanan	1966	100	Optiment Studentes Militarily 3.1, Optiment Commercia Militarily 3.1, Optiment Solutions Architect 3.1
Empiric Inc.	Wathern, Mass.	www.emphile.com	Juff Hotchicss	2000	400	Multimedia Test Ensamble, Hammer (T Contact Center Test System, e-Test Subr
ErroryWork#Mile Inc.	Bilerca Mess.	www.emeyeartheids.com	Alam Dest	1906	50	EnvoyAprais, EnvoyProllies, EnvoyMand
Oran Schrönne Ltd.	Mountain View, Calif.	THEFTELOO	Arysh Finegold	1900	140	Craus Lino (formerly Clus/Wireless and Clue/Web)
Remarks Inc.	Burington, Mass.	State Secondarions	Andrew Payne	1906	50	Revenio Dialog 2.0
Stepholicust Inc.	Fairfield, N.J.	www.siapinfront.com	Thomas R Buckley	1996	525	Visual Elk VE S.I. Web Works for WWP LO, Product Elk LD
The second live				- 3750		A STATE OF THE STA
Deciden/Vold Applications Inc.	Beaverton, Ore.	ameripality com	Yorgen Echolin	1000	60	Decision/Point for Financials 7.0, Decision/Point for CRM 2.0, Decision/Flow 1.
Integrated Development Enterprise Inc.	Concord, Mass.	www.kla.com	Richard S. Moore	1006	142	Dweb, Opertner, Dinancials
Malain Ltd.	London	www.india.com	Andyltayler	2001	57	Kulido 5.1 Kulido ERP 6.1 Unilmer MS 6.1
Lorsignet Technologies Inc.	Concord, Mass.	www.hanigant.com	Lev/eyezbit	2000	50	Log Espineer for SCR. Server Enterprise Edition 21. Log Espineer for SCR. Server Professional Edition
HosCore Inc.	Colorado Springs	-	TimDix	1907	50	NeeCore XMS Version 2.0
Seals Eight Inc.	Sanfrancisco	westen	Dick Weets	1006	140	Global Storage Service 2.0
Synormax Inc.	Redmond, Wesh.	WWW.spercont.com	BruceLeader	1997	27	Syrcronex WeePoint 4.0, Syrcronex VisePoint - Wireless Edition 4.0
Peda Heterola inc.	Western Wileys, Calif.	were builtonelesselfe.com	Alan Skidmore	1006	125	Zontal Controller, Path Comment Plus for Zentes 2.5,

COMPANY NAME	LOCATION	WEB ADDRESS	CEO	FOUNDED	BAPLOYEES	PRODUCTS OR SERVICES
E-promotor softene	and purvices					
Altra-Energy Technologies Inc.	Houston	www.altra.com	PauBourke	1000	220	Altra Market Place, Altra Market Took, Altra Market Solutions
Acors inc.	Beimont, Calif	WWW.apera.com	DovdMurphy	1000	350	Azera eSusinens Operating System Rideens 4.12. Azera Sell-Side Applications Release 4.12
Amerity	San Jose	www.azerity.com	Siephen-Gold	1900	120	ProChannel Collaborative Solution Suits 4.0, ProChannel Catalog 4.0. Blobal Price Management 4.0
Californ Software Inc.	San Jose	www.colldusofhuars.com	Reed Taursag	1906	225	TrueComp Manager 2.5, TrueComp Viewer 2.5, TrueComp MoJeler 2.5
Comergent Technologies Inc.	Redwood City, Calif	www.comorgani.com	Jean A. Kevecs	1998	170	Cornergent Distributed E-Business-System Raisons 5.0
Engante Software Inc.	Reston, Va.	www.engenis.com	Jeffrey C. Ongler	1998	40	Engana Collaboration Services Platform 2.0, Engana Partner OnRamp 1.
Metra Tech Corp.	Wather, Mass.	www.metratech.com	Scott Swertz	1996	85	MetaBil 2.0, MetaView 2.0, MetaPartner 2.0
Hervellifre Inc.	Newton_Mass.	Water Control of Control	Malcolm Frank	1000	220	Strategy and planning services, systems integration services
HerVender Inc.	Atlenta	www.netvender.com	Sean/McCloskey	1906	130	NetVendor Sales Collaboration 1.0, Embrace 4.2, NetVendor Configuration
Trigo Yackmalogios Inc.	Brebane, Cell	www.trigu.com	Thomas Reilly	2000	55	Trigo Enterprise
Visual Insights	Neperville, II.	www.viewellneights.com	Douglas A. Cogravel	1997	110	eBanagits 20. eBanagits CS, eBanagits XL
Indicate heard made	offices  -		Te as a			margaret and a
Clickshilley Inc.	San Francisco	www.clickshilty.com	John Girard	1900	35	Chivary, Misors
Fast Search & Transfer ASA*	Osio	www.fastsoorch.com	John M. Lervik	1907	200	Fast Web Search 1.0, Fast Mobile Search 1.0, Fast Inframet Search 3.0
Granus Naturarius Inc.	Beverly, Mass.	www.growenshmrfu.com	Ray Ozne	1997	209	Broove 1.0, Groove Enterprise Network Services, Groove training
Mirepoint Inc.	Sunnyvala, Calif.	www.minpoint.com	Satish Ramachandran	1907	190	Mirapoint Message Director 291, M2500 Internet Message Server 291, Mirapoint Internet Directory 29.1
MS2 Inc.	Mountain View, Colf.	www.mcZonn	Jeff Hydron	1906	105	MS2 Accelerate 2001 Retense 7.0
NavOladk Jac.	Boston	www.nedmediccom	Tirrofly Hargarian	1906	130	Norther 4.0
OutlookSoft Corp.	Starnford Conn.	were enthubered com	Oraig Schill	1906	85	Enterprise Analytic Portal 1.0, Financial Planning and Analysis 1.0
Placelitiers Inc.	Mountain View, Calif.	woughcourseon	Barry James Folsom	1000	240	PlaceWare Conference Center 3.0, PlaceWare Event Series. PlaceWare Forum 3.0
Plumtrue Software	San Francisco	www.phantros.com	John Kunze	1997	270	Phentine Corporate Portal and Phentine Gadget Web services
Porteraino.	Campbell, Calif.	www.parlura.com	Gary L. Steele	1900	250	Portera ServicePort
Spotlire Inc.	Somerville, Mass.	www.peths.com	Cirristopher Milberg	1946	150	Spotline DecesionSite & O, DecisionSite for Lead Discovery. Spotline Array Explorer 3.0
Tollino Mountrito Inc.	Mountain View, Calif.	www.fallenc.com	Mike McQue	1900	250	Tellme Voice Application Network
Mobile and wireless	The second					and the second second second
29loom Inc.	Redwood City, Calif.	www.2man.com	Torn Jackson	1000	100	2Rosen Catalyst Server 21, 2Rosen Normad Publisher 1.6, 2Rosen Weekes Value Added Servers
724 Solutions Inc.*	Austin, Texas	www.724.com	John Sims	1907	685	Wreless Internet Platform 3.0, Financial Services Applications 3.2, Alerts Platform 3.0
Air 2 Web Inc.	Atlanta	www.air2mak.com	Sanyoy Malik	1000	160	Mobile Internet Platform Version 2.0
Antonna Software Inc.	New York	www.edocooofheers.com	Perer Serverelhack	1900	40	Antenna Service Tools Version 1.5, Antenna Tools and Antenna Tools Mobile for Clarify Version 1.0, Antenna Tools for FieldPro Version 2.5
Everypoth Inc.	SanJose	www.enrypell.com	Venidesh Shukla	1996	180	Everypath Server 3.0, Everypath Studio 3.0, Everypath Always On 1.5
MetaleSys Inc.	Mountain View, Calif.	www.meblesps.com	David Coeho	1000	110	MobileSys Network, MobileSyeMX 2.0, Omnibrowser
Methicition Wireless Inc.		www.cotmollomaireless.com	Craig McKibben	2001	34	HetMotion Mobility 1.0. MetMotion 3.0
Tenres	Lavel Quebec	www.tenroz.com	Rudol Melk	1000	75	Project 6.5, Office Timesheet 6.5, InChange 6.5
Natural/papers	spine of the last			Sec	-	
SharStar Solutions Inc.	Cupertino, Celf.	www.blassincoleffere.com	Thomas F. Kelly	***	200	Fully housed and managed SAP solution, remote mannied operations, support
Business Layers	Rochelle Park, N.J.	www.bushambqurz.com	Leher Shey	1900	90	eProvision Day One
Configurement less.	Woodland Park, Colo.	www.configuresit.com	E. Alexander Goldstein	1000	60	Enterprise Configuration Manager S.B. Enterprise Configuration Manager Windows St Migration Planner LO
Clarif, sop Network	Wathern Mass.	www.glandoop.com	Mark Ward	2000	300	Enterprise Optical Nationaling
Passins.	Redwood Shores, Calif.	www.jees.com	Michael Mansouri	1900	225	Global Broadband Roaming, PassConnect PDA, Pless Corporate Access
Liver Hoterack Inc.	Sendy, Utah	www.linemateurz.com	Glen Lowry	2000	55	Evolocity, Cluster WoX 2.0, los Box
MatOut Inc.	Austr. Texas	www.refere.com	Jori Turmed	-	35	NOVisionQuest NORsporter 2.0, NQAvelyrer 2.0

## **EMERGING COMPANIES 2002**

CONTRACTORE	LOCATION	WIB ADDRESS	CEO	YEAR POUNDED	HAMBER OF EMPLOYEES	PRODUCTS OR SERVICES
Day Inches	and the second				2.2	
Hallandy Inc.	Santa Clara, Calif.	www.nat reality.com	lan Raab	1867	100	War-War-Enterprise, War-Wary-WRS 4.0, Wan Tel module for the War-War-MAPS 4.0
Hobourk Date Systems	Rolling Meadows, II.	www.retwork-data.com	Al Siders	1997	75	Converged Network Solution Version 3.0, Metwork Outmoseion Solution Version 3.0, Mobility Solution Version 3.0
MOCpulso Inc.	Surreyele, Calif	www.mopules.com	Paul Santmelli	2000	50	NOCpulse Command Center
Stare Heterorie Inc.	Watham, Mass.	www.eliaranaheorka.com	Malk Kvan	1968	200	QuSWorks QWL9. QuSArray QA12, QuSDirector QD1.4
Smart Passing.	Redwood City, Calif.	manarama (bijest com	Hank Nothhaft	1900	210	SwerPipes Blobal P Services 1.0, WorldCom P VPN Customer Directed
Surplant Hotocrio Inc.	Austin, Yexas	www.aurplent.com	Nagi Rao	1900	125	Surplant eQ2500 rack unit server
Toron Systems Inc.	Hyannis, Mass.	www.inqua.com	Robert Stenkrauss	1906	240	Open-Compact Exchange 1.2
WillComm be.	San Diego	several decourt com	Hop Pharn	1996	140	Bluetooth Communications Software Solution for Embedded Systems 11, Bluetooth Communications Software Solution for Windows 11, BlueSate 21
	dantes					and the state of t
Captus Hotorrio Corp.	Woodland, Calif	www.captuanetworks.com	Richard G. Helgeson	2000	91	CaptiO 1.3, CaptiO-621.3, CaptiCC Biobal Administrator 1.0
Counterpane Internet Security Inc.	Cupertino, Calif.	www.counterpana.com	Ton Rowley	1966	104	Managed Security Monitoring 1.0
Courton Corp.	Framingham, Mass.	www.courion.com	Christopher Zannetos	1906	125	PasswordCourier 4.5, Profile Builder 4.5
e-Generity Inc.	Rockledge, Fla.	www.mecolitylec.com	Nicola Sanna	1006	75	Open e Security Platform Version 3.0, e Security Administrator Workbanch Version 2.1
offetting.	Englewood, Colo	www.senff.com	Thomas Donahue	1906	30	eSnif 1100, eSnif 1000
Courdest Inc.	Waltham, Mass.	www.purdent.com	Maria Cinno	2000	180	Managed security services
Keyware Tealmologies Inc.*	Waturn, Mass.	www.hapware.com	Francis Declercq	1904	275	CAS 1.0, Smert Cards Suite 1.0, Access Control
HUSUNInc.	Monmouth Junction, N.J.	www.nhour.com	ParagPruth	1997	150	HerDetector LL NerVCR 2.0
Childring.	Cupertmo, Calif	www.chike.com	Gordon Eubenks	1998	200	Oblix MedPoint S.O. Oblix Publisher S.O
Postaliale Security Technologies Inc.	Houston	tronsperimels.com	Douglas J Erwin	1007	325	VigiEnt Security Manager Version 3.0, VigiEnt Policy Center Version 2.0, VigiEnt Security Agent for ASY400 and Sense Version 8.0
Top Layer Hotsories	Westboro, Mass.	www.inplayer.com	Ron Brumback	1967	160	AppSarle 3500 3500, SecureWatch Version 1.0, Intrusion Detection Service Version 1.0
Tripotrolec.	Porland, Ore.	www.tripmire.com	W Wyoff Starries	1967	156	Tripwire for Servers 2.4, Tripwire Manager 2.4, Tripwire for Web Pages 1.0
Standard Sales States	med .	- income		1		A second of the second of the second of
Armente.	San Cartes Calif	WWW.AFTEGELCOM	Familiborty	1000	130	ArmonUFE 31
Pul Degree Inc.	Palo Alto, Calif	www.haldearea.com	Mark Booham	2000	16	Next generation content management system
Optiont Inc.	Somerville, Mass.	www.epfant.com	Marcus Ruark	2000	30	PowerChain Inventory 33
Prison Wood Software	Port Washington, N.Y.	www.arlemes.com	Lovaine Keatro	1997	6	SenQuest RoadQuest SenMeter
Repting.	San Francisco	www.rept.com	Tors Chavez	1008	75	Rapt Buy 2.0, Rapt Sel 1.0
SPS Commerce Inc.	St. Paul Minn.	WWW.Specimentos.com	Archie Black	1966	125	SPSCommerce.net, online catalog service
Depphylicheles Inc.	Southfield Mich.	www.aupplyockston.com	Chris Montz	1966	150	+Supply 3.2. +Gett. SupplySolution Global Infrastructure
The Information of	ervers, colleges and		G	. 8		
Alphables Corp.	Mountain View, Calif.	www.aishaidar.com	Poly Summer	1906	202	Alphablox 3.0, SpreadSheet Bloss
Chainey Technologies Inc.	Atlanta	www.chatosylech.com	Anndys Data	1986	40	Channey Preliander 3.1
Emiliation."	Mountain View, Calif.	www.equinis.com	Peter Van Carno	1966	35	Equips Gof Eachange Direct Interconnection service
Everdram Corp.	Fremont, Calif.	www.everdreen.com	Gary Griffiths	1006	150	Eventream Complete, Eventream Direct
Madaran Toolmalogica	Senta Clara, Celf	www.malanas.com	Eyel Waldman	1996	160	InfinBritan1.0
PicturelQ Corp.	Seatte	www.pichenis.com	Bil McCov	1946	51	Transforce 1.0. Photoforce
Resispent Managed Heating	Sen Antonio	www.raclopacu.com	Graham Weston	1006	150	Managed hosting, managed frewells and managed a converse solutions
RLX Youlessingles Inc.	The Woodlands, Texas	www.rhdochenhgles.com	Pat Collins	2000	140	PLX Sestem SQ4
Salmatric Systems	Mountain View, Calif.	www.minntit.com	Andre O Schwager	1997	100	Satmetric Customer Hursion 6 6, Satmetric E-commerce Version 6 6, Market Stat Version 1.0
Thinnian Corp.	Rolling Meadows, III.	www.laferiese.com	Gordon Reichard Jr.	1006	220	WidStructure, Rigid Start Hosting Pletform, Managed Security
Tests Sufficients	Austin, Toxas	www.ionic.com	Bran Philips	1000	75	Tonic 1.9
MAP.	San Jose	www.unbercom	Subrah S. Iyer	1986	500	Meeting Center 4.0, OnStage 2.0, OnCall 2.0
Constructionalisms Inc."						
Constructional los.* Wild Temperat los. Willy Technology los.	Redmond, Wash.	www.midlangont.com	Alex St. John	1000	136	Wildfangerst Web Driver 2.0



## SHEILA DREADED MOVING DAY.

Moving to Microsoft Windows XP is eas



Moving data to a new computer is a scary proposition. So when my company bought new PCs with Microsoft "Windows". PP, I panicked. Then, I talked to a friend, Just use your Zip" afrive, she sold. So, I checked out the lamega web site, downloaded their migrations solution and breathed a sigh a frelief, I transferred my files, application and moil settings – even front defaults and USLS. It was fiss, softe, and dare I domit lik. easts, she in addeals and milk. Extra she with the state of the state

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TRANK HAYIS THOUSING SOME VICINIC

# Due Diligence

URVIVAL - THAT'S WHAT WE WANT, Face it, right now we're not really looking for cutting-edge anything. We all just want to survive until business improves.

Funny thing is, we can't do that alone. We need help. That's why doing business with emerging technology companies is such an opportunity - and a challenge. They may have exactly the hardware, software or services that will help us make it through this rough patch and give us a fast

start once things pick up again.

But to help us survive, they'll have to become our partners - to depend on us the way we depend on them. That means we've got to be able to trust one another. And with budgets tight and survival at stake, that's not easy How do you build that trust, so that you and your partners can make sure you all profit from your mutual suc-

Check references, Call other customers and ask the CIO where the potential pitfalls he not just what a swell little company this is Call the financial references, then check to see how these venture capitalists are dome with their other investments. It it takes signing a nundisclosure agreement, net the OK from your legal bengles to do at. Yeah, due diligence takes time, and

it's no fun compared with a flashs

7 on you.

dono. But it's a lot cheaper than get

time beat up if a supplier goes Chapter

Ease into it. If it's a services vendor. load lots of work right away. If it's software, a fast transition sounds great. But moving fast is where your biggest risks lie. Your CFO won't thank you for ins thing risky with a small vendor and users won't be happy if the CFO cuts your budget and you have to roll things back.

Escrow source code. Not lone and we could sately assume good technology would be snapped up if a

small company went under New that's less coretam Make sure you'll have access to the source. code - or if it's a service vendor, records and docmusertation about your systems - in case your

vendor goes belly-up. Pay on time. Negotiate a clause that says the year dor will be paid in a timely fashion with worth-their-while penalties if your royables department doesn't deliver.

Your accounting people won't like it they want the option of being slow to turn bills, too, But it's the only way your IT shop can guarantee you won't be squeezing the life out of an emergine company that you would like to

depend on. Leverage enthusiasm. If your IT staffers think a product or service is a most idea, they'll spend their own

time learning the skills for it, which cuts the real cost. If they think it's a had idea, they'll drug their beels, making it more expensive - which you con't afford right now. Edly to your people and factor their onthusinem

Check the road map. They do have a plan going forward, right? You do, too. - don't you? Make them drill into their road map for you. Find out how it will play in terms of your plans and other IT providers. If it'll be a better fir in a year or two, dip a toe in today -

but just a too Megetiate propriate negotiate. Forget the boilerplate - take the time to work out a win-win deal. Get source-code escrusand performance works in there. Give them a and a timely payment clause. Remember, you want a partnership, not

hostility - and you want a deal that helps assure that you and your emercing partner have a better chance to survive.

## **Business Basics**

Percentage of this wor's Emerging Companies that have made acquisitions: Percentage of this year's 11% **Emerging Companies** that have been spun off from a parent company

Percentage of this year's **Emerging Companies that** have been part of a mereer

Number of public com on this year's Emerging Companies list:

## Goina Public How the public companies on

the Emerging Companies list are faring: Fast Search & Transfer ASA Oslo Stock Exchange symbol: FASI initial day of listing: June 21, 2001 First day open: \$1.40 First day close \$140 \$130

Leyware Technologies dag Europe symbol: June 23, 2000 hal day of listing: 966,785

Oct. 31 close: 724 Solutions Inc. esdaq symbol Ital day of list Jan 28 2000 \$20 to \$22 Smiles had offer price \$75 First day close \$71.81

Aug. 11.2000

S10 to \$12

Nov. 1	dese:
Equini	
	symbol: lay of listing:

\$7.25

\$730

Shares offered:	20 million
Actual offer price:	\$12
lest day open:	\$12.75
First day close:	\$13.13
lov. 1 close:	49 cents
WebEx Communica	tions Inc.
fandaq symbol:	WEBX
nitial day of listing:	July 28, 2000
represed offer price:	\$12 to \$14

\$17.25

\$29.11

\$33.06



FRANK HAYES/FRANKLY SPEAKING

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start once things pick up again.

become our partners - to depend on us the way we depend on them. That means we've got to be able to trust one another. And with budgets tight and rvival at stake, that's not easy How do you build that trust, so that

you and your partners can make sure Check references. Call other cus-

But to help us survive, they'll have to | tential pitfalls lie, not just what a swell little company this is. Call the financial references, then check to see how these wenture canitalists are doing

with their other investments. If it takes signing a pondisclosure agreement, per the OK from your legal beagles to do it. Yeah, due diligence takes time, and it's no fun compared with a flashy demo. But it's a lot cheaper than getting beat up if a supplier goes Chapter

Ease into it. If it's a services vendor, you'll get maximum benefit if you offload lots of work right away. If it's software, a fast transition sounds great. But moving fast is where your biggest risks lie. Your CEO won't thank you for anything risky with a small vendor and users won't be happy if the CFO cuts your budget and you have to roll things back.

Escrow source code. Not long ago, we could safely assume good technology would be snapped up if a

small company went upder. Now, that's less certain. Make sure you'll have access to the source code - or if it's a service vendor, records and documentation about your systems - in case your

vendor goes belly-up. Per on time. Necotiate a clause that says the vendor will be paid in a timely fashion, with worth-their-while pena ties if your payables de-

Your accounting people wan't like it they want the option of being slow to pay bills, too. But it's the only way your IT shop can engrantee you won't be squeezing the life out of an emerging company that you would like to depend on.

Loverage onthusiasm. If your IT staffers think a product or service is a good idea, they'll speed their own time learning the skills for it, which

cuts the real cost. If they think it's a bad idea, they'll drag their heels, making it more expensive - which you cap't afford right now. Talk to your people and factor their enthusiasm into your plans.

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## **Diversity in Information Technology**



Rating ourcoverful compenies about their discratity strategy frequently brings a moment of ellenes. For those who are succeding, walving discratity is no program of the month. It's a way of operating. "It's socirel to our business," says Andre Beedlets, seeclets director of staffing for

Collegy Co. "We do what is needed to streat and retain a pool of talented peoils. Our customer base is diverse so we make sure we are able to reflect that base and understand it." One look at **Kellogg's** web site pinpoints the second aspect of the hining strategy at **Kellogg** – a finendly workplace. For IT professionals the web site represents something else

Kellogg was among the first food companies to have a web size. Back in 1996 it sported an animated Tony the Tiger. Today, the size and the business are combining the alves of Ken-

blar and Tony, there's a company store, communty service links, games and a link to **Keilegg** Racing. The consolidation of Keebler and **Kellegg** is requiring new IT strategies, including an integrated SAP implementation.

Goodlett says **Kellogg** is hinning at a variety of levels, from PC and database support to leaders and managers for the implementation, which includes the majority of SAP modules. "We're rolling this out on a very aggressive timeline for

all of the **Kellogg** U.S. business," he says. Postions currently open include business and technical analysts, senior programmer analysts, database mensorment and administration.

"We need to street people who went to work on infrastructure, as well as implement, and immittant a large scale conception extram, including a large scale conception of which is street, and is street, and within Makings on every day presents some within Makings on every day presents some which present some properties interest. You can get some immediate gradication because everything wire doing will have a direct influence on the betternies of the company's performance. There are tremendous apportunities here for canino whalled tremendous apportunities here for canino whalled tremendous opportunities here for the company of the company of the continue whalled continue continue whalled continue whalled continue whalled continue continue whalled continue continue whalled continue continue

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## **Seamless E-Commerce Giving** peering fellow at Pleasanton, Calif.-based Commerce One Way to XML/EDI Hybrid

Users face data translation needs but like compromise approach on protocols

THE FIRST round of efforts by e-commerce standards bodies to harmonize XML-based technology with electronic data interchange (EDI) protocols is making the promised world of seamless business-to-

business transactions look like Instead, osers are likely to be presented with a hybrid approach in which data translation document mapping and enterprise application integra-

tion tools are facts of life. For example, a joint XML/ EDI working group that's developing a common set of core technology components is looking to use XML document wrappers from Open Applications Group Inc. in Marietta, Ga., and modified EDI documents as the standard data

formats for online transactions. The group finished its member comment process last Friday and is preparing to release its first working document for public review

#### **Balancing Everyone's Needs** Mezowhile, XML-centric

document standards. document libraries like the Universal Business Language. backed by technology vendors SAP AG. Sun Microsystems Inc. and Commerce One Inc., continue to fight for acceptance. But for some users, the lack of a pure XML-based data format for e-commerce transactions isn't a problem. Klaus Haidacher, procure-

ment operations director at Siemens Procurement and Logistics Services LLC, an Iselia, N.J.-based subsidiary of Siemens AG, said compromise e-commerce approaches will work best for many companies.

ers to change all their formats," Haidacher said. "They don't make changes like that." Matt Cordner, director of

strategic planning for operations at Bell Helicopter Textroo Inc. in Fort Worth, Texas. said standard product codes set by the United Nations will likely have more of an impact on his company's business-tobusiness activities than XML

"We want to build to standards where we can but we tend to wait for them to mature before we make an investment," be said. "So far, we don't see anything out there."

Indeed, vendors have flood ed the market with different Asea formats for XMI Aproments. One effort to help companies deal with the glut was announced last week by a group of users and vendors that's trying to blend XML immentation protocols used in different vertical industries

(see story below). Keo Vollmer, an analyst at

claimed that plug-and-play e-commerce will get boused down if it relies too much on the plumbing of earlier transaction models, such as EDL "It's like going to the moor with a ladder," Glushko said Cambridge, Mass, said the weak economy is also a factor "It's really good for the first few

**Rival B2B Exchanges Push Common Data Standards** 

Retail groups seek adoption of content rules by mid-2003

in dampening enthusiasm for

wholesale switches to XML-

based IT initiatives.

The two business-to-business exchanges dueling for predominance in the retail industry are calling a truce to encourage content providers represent ine more than 12,000 manufacturers to adopt a common set

of data standards. San Francisco-based Global-NetXchange LLC and Alexandria, Va.-based WorldWide Retail Exchange LLC last week jointly announced a proposed timetable calling on online catalog developers and other aggregators of product information to support the Global Commerce Initiative's (GCI) business-to-business stan-

dards by mid-2003. The GCI, a group of large companies and trade associations in the manufacturing and retail industries, last year released a protocol setting basic rules for data access and security, message content and the flow of information between trading partners. The two retail exchanges said they sur-veyed content providers that

found that many are already migrating toward compliance with the GCFs standards,including the use of XML mes-saging and the data schema defined by the group.

The Broader, the Better

The product data mai tained by content and catalog developers is used by retailers in their internal systems, and the exchanges said wider adoption of the GCI standards would help improve data syn chronization between con nies and make it easier to sh information electronically.

Bharat Poput, vice president of product development at GlobalNetXchange, said he expects product ordering and payment activities using the mmon standards to begin taking off late next year. Offi cists at the two retail exchanges are aware of e-commerce stan dardization efforts for differ

ent industries, Popat said. But be deemed those secondary to the retail-specific joint effort.

Gale Daikoku, an analyst at Stamford, Conn.-based Gart ner Inc.'s G2 unit, said the retail exchanges "are having a tough time getting memi adopt [their] services, so the broader they can make the standards, the better."

## Users, Vendors Agree on XML Implementation Model

With so many versions of XML being promoted by different groups. It's no surprise that a standardized method of implementing the would be technical standard was

ropceed lest week. The Business Internet Consum (BIC), a Portland, Ore-bar rup of users and vendors, pub-and a conceptual model that Group members include Ford Motor Co., The Gillette Co. and Reuters Group PLC, plus vendor Compaq Computer Corp., EM, Intel Corp. and Microsoft Corp. ferry Spires, a marketing men

ws, who is chammen of the



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## Bag the Gag Rule

HIS WEDNESDAY MARKS DAY 30 since the Nimda.e worm showed up on the Internet. Microsoft and a few of its security cronies would have us believe that 30 days is about the right amount of time for everyone to shut up about any particular security vulnerability. The idea, floated by the group after Microsoft's Trusted Computing Forum this month, is that the IT industry should agree on a "grace period," during which the affected software vendor can fix the problem and issue patches without worrying about information on the

vulnerability leaking out. After all, what could happen in 30 days? Well, at the U.S. District Court for the Southern District of Florida.

30 days is long enough to turn the clock back 30 Two days after it was discovered in the wild.

Nimda E hit the court's offices in Miami. By the following Monday - Day 8 - PCs were crash-

On Day 10, the court reverted to doing every-. thing the old-fashioned, noncomputerized way. It might have been 1971 instead of 2001. Forms were filled out by hand, and clerks used phones instead of networks to get information on defendants and cases in other cities.

By Day 15 - halfway through the 30-day "erace period" - the court's Web site still was not back up, and IT staffers were still cleaning

Nimda.E off PCs one at a time. Oh yeah, keeping a lid on a security problem for 30 days — that II sure protect us.

But it's not intended to protect us, is it? Microsoft has a problem, and nobody in Redmond doubts it. Hardly a week goes by without some Microsoft product - Web browser, Web server, office application, e-mail client, operating system - bitting the news because it has a

security vulnerability But the 30-day gag rule that Microsoft and its tame security partners are proposing won't reduce the risk for the users of those products. It will just reduce the risk to Microsoft's reputation from the weekly

public relations problems. That 30 days ign't just for coming

to soin the bad news. No wonder Microsoft wants the whole industry to take the 30-day

up with a patch. It's an entire month pledge. The company with the secu rity problem gets to tell its version

of the story publicly when it issues its patch. Competitors promise to keep their mouths shut for a month after it's discovered. Meanwhile, nobody is suggesting that crack-

ers will observe any 30-day moratorium after they discover a security hole. Of course they won't - no matter how nicely Microsoft asks them. They'll write their worms, their viruses. their tools and their sample code to exploit

whatever vulnerabilities they find. And in a matter of hours, word of the exploit will reach every creep who wants to break into.

corrupt or shut down our systems. We, of course, won't bear about it from official industry sources for another 29 days after

But somehow we can be pretty sure the crackers will make us aware of it.

And when they do, instead of having the best, most accurate and most complete information on our security exposure, we'll get some kind of vague, limited bafflegab from security experts. It won't keep the bad guys from knowing anything - they'll already have the information.

All it will do is keep us from making informed decisions for ourselves about exactly how severe the risk is, what our security options are and which actions are most appropriate

for each situation. As I write this, they're still cleaning up the mess and reliving the 70s. down at the federal court offices in Miami. One user told a reporter, "It's

kind of nice not having computers." Maybe it is for him. The rest of us would rather have what we need to keep our systems running - and not have to wait 30 days for it.

TRY TO REMEMBER Helo desk pilot fish gets an urgent e-mail support request from a relatively new hire: "I am trying to print something, and my com-puter lesses telling me I am out of memory. That seems crette unlikely, since I just started in

THE RULES AT this university research lab say there has to be at least 100 square feet of office space per person. But when IT pilot fish and lab manager are trying to figure how to cram in as many faculty and staff as possihip there's a problem: Each of fice in the new facility is just under 150 square feet. "That's OK." manager says. "We'll put three pecale in every two offices."

TURN THE PAGE This hospi tal's new decision-support sys tem automatically generates, formuts and posts monthly reports to the company intranet, then e-mails a Web link to the users who need to see the moort Greet, as fer as it goes, use complains to consultant pilot fish. But the report covers only A-L - what about M-2? Fish into user with a proposed solution: "Click on "Page 2"

AFTER REINSTALLING a pro gram on this user's PC for the third time, support pilot fish asks the user to describe exactly what happens before it crashes. User arrowers. True the Uni-stall program, and then it stops working." IT DIRECTOR PILOT FISH

gets a transic call from the building facility manager - a user's laptop has apparently set off a fire alarm! Figh arrives and reovertes, the situation: User noon the laptop out of her own docking station, then redocks at an other uner's deek. "Accordate that caused the internal microphone volume to lack up to mee mum " fesh saves. "The freedback was so loud, everybody thought It was the fire alarm and pri

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